Bligh Grant · Cathy Yang Liu · Lin Ye
Editors

Metropolitan Governance in Asia and the Pacific Rim

Borders, Challenges, Futures

Springer

Metropolitan Governance in Asia and the Pacific Rim

Bligh Grant · Cathy Yang Liu
Lin Ye
Editors

Metropolitan Governance in Asia and the Pacific Rim

Borders, Challenges, Futures

Springer

Editors
Bligh Grant
Institute for Public Policy and Governance
University of Technology Sydney
Ultimo, NSW
Australia

Lin Ye
School of Government
Sun Yat-sen University
Guangzhou
China

Cathy Yang Liu
Andrew Young School of Policy Studies
Georgia State University
Atlanta, GA
USA

ISBN 978-981-13-0205-3 ISBN 978-981-13-0206-0 (eBook)
https://doi.org/10.1007/978-981-13-0206-0

Library of Congress Control Number: 2018938642

Printed on acid-free paper

This Springer imprint is published by the registered company Springer Nature Singapore Pte Ltd.
part of Springer Nature
The registered company address is: 152 Beach Road, #21-01/04 Gateway East, Singapore 189721, Singapore

Acknowledgements

The editors would like to take this opportunity to acknowledge the contributors to this edited collection for all their work on their respective chapters, and the blind reviewers who undertook several reviews of all the chapters of the book.

We would also like to thank Dr. Margaret Wilder, Executive Director of the Urban Affairs Association (UAA) for all her work bringing the UAA Annual Conferences together, in particular the "Special Tracks" on Asia and the Pacific Rim over several years.

Our thanks also to Prof. Roberta Ryan of the Institute for Public Policy and Governance, University of Technology Sydney, who graciously agreed to provide the resources for the copy editing of this book, and to our patient copy editor, Alison Basden, for her sterling contribution. Thanks also to Stephen Jones, Editor, Business, Economics, Law, Politics and Statistics at Springer Australia for all his encouragement with this project.

Contents

1 Introduction 1
Bligh Grant, Cathy Yang Liu and Lin Ye

Part I Borders

2 Russian Borderland Towns *Vis-à-Vis* the Japanese Other: Outposts, Destinations, and Gateways 15
Serghei Golunov

3 Toward a Defensive Global City: Urban (In)security in an Age of Terror—The Case of Jakarta, Indonesia 33
Husnul Fitri Sundoko, Roos Akbar, Denny Zulkaidi and Teti Armiati Argo

4 Bordering Practices in Global Sydney: Becoming a City-Region or a "Metropolis of Three Cities"? 57
Kane Pham

Part II Challenges

5 Upgrading Housing Settlement for the Urban Poor in Indonesia: An Analysis of the *Kampung Deret Program* 75
Deden Rukmana

6 Comparing Informal Sector Engagement Across Pakistan's Largest Urban Centers: Lessons in State and Non-state Engagement from Karachi and Lahore 95
Faisal Shaheen

7 China's New Suburban Reality: An Attempt to Systematically Define the Chinese Suburb 123
Pengfei Li

8 Moving from Rural to Urban: Urbanization and Its Implications for Educational Equality and Equity in China 143
Ming Yin

9 Urban Sustainability in India: Green Buildings, AMRUT Yojana, and Smart Cities 163
Russell M. Smith and Prasad Pathak

Part III Future

10 The Sino-Southeast Asian–Australasian Necklace: Critical Junctures, Branding Cities, and Entrepreneurial Leadership 193
Anthony K. C. Ip and Thomas Yip

Contributors

Roos Akbar School of Architecture, Planning and Policy Development, Institute of Techology Bandung (ITB), Bandung, Jawa Barat, Indonesia

Teti Armiati Argo School of Architecture, Planning and Policy Development, Institute of Techology Bandung (ITB), Bandung, Jawa Barat, Indonesia

Serghei Golunov Faculty of Law, Kyushu University, Fukuoka, Japan

Bligh Grant Institute for Public Policy and Governance, University of Technology Sydney, Broadway, NSW, Australia

Anthony K. C. Ip New Asia Arts & Business College, Tokwawan, Kowloon, Hong Kong, China

Pengfei Li Department of Urban Studies, Queens College, City University of New York, Queens, NY, USA

Cathy Yang Liu Andrew Young School of Policy Studies, Georgia State University, Atlanta, GA, USA

Prasad Pathak Department of Physical and Natural Sciences, FLAME School of Liberal Education, FLAME University, Pune, India

Kane Pham Institute for Public Policy and Governance, University of Technology Sydney, Broadway, NSW, Australia

Deden Rukmana Urban Studies and Planning Program, Savannah State University, Savannah, GA, USA

Faisal Shaheen Department of Politics and Public Administration, Ryerson University, Toronto, ON, Canada

Russell M. Smith Department of History, Politics and Social Justice, Winston-Salem State University, Winston-Salem, NC, USA

Husnul Fitri Sundoko Indonesia Institute for Defense and Strategic Studies-LESPERSSI, Jakarta Selatan, DKI Jakarta, Indonesia

Lin Ye School of Government, Sun Yat-Sen University, Guangzhou, China

Ming Yin Graduate School of Arts and Sciences, Washington University in St. Louis, St. Louis, MO, USA

Thomas Yip New Asia Arts & Business College, Tokwawan, Kowloon, Hong Kong, China

Denny Zulkaidi School of Architecture, Planning and Policy Development, Institute of Techology Bandung (ITB), Bandung, Jawa Barat, Indonesia

Chapter 1
Introduction

Bligh Grant, Cathy Yang Liu and Lin Ye

Abstract Within the diverse field of Urban Studies globally, attention is increasingly drawn to Asia and the Pacific Rim for two underlying reasons. First, the region's heightened importance internationally, conceived from both within the lens of Urban Studies and more generally, specifically economically and politically. Second, as a mechanism to continue to redress the gap within Urban Studies historically, where attention has consistently focused upon developments and theories pertinent to Europe and North America. This book arises from the activities of the Urban Affairs Association (UAA), specifically the 2016 Annual Conference held in San Diego in April of that year. It is thematically divided into three parts. First, "Borders," which consists of three chapters that combine Border Studies and Urban Studies to examine, in turn, the Russian–Japanese maritime borderlands, urban (in)security in Indonesia, particularly Jakarta, and rescaling processes in Sydney, Australia. Second, "Challenges," which examines attempts to house the poor in Jakarta, the issue of service provision to the Informal Sector (IS) in Karachi and Lahore, the issues of education and (sub)urbanism in China's cities, and sustainability and Smart Cities as elements of India's urban policy. Part three of the book, "Futures," provides a strategic account of the development of and linkages between the Pearl River Delta (PRD), Vientiane-

B. Grant (✉)
Institute for Public Policy and Governance, University of Technology Sydney, PO Box 123, Broadway, NSW, Australia
e-mail: Bligh.Grant@uts.edu.au

C. Y. Liu
Andrew Young School of Policy Studies, Georgia State University, Atlanta, GA 30302-3992, USA
e-mail: cyliu@gsu.edu

L. Ye
School of Government, Sun Yat-Sen University, 135 Xiangangxi Road, Guangzhou 51075, China
e-mail: ylljc@hotmail.com

B. Grant et al. (eds.), *Metropolitan Governance in Asia and the Pacific Rim*,
https://doi.org/10.1007/978-981-13-0206-0_1

Central Laos, and Darwin and the Northern Territory as Asia's burgeoning hinterland. Throughout, we ought to be cognizant that while urban theory is developing rapidly as it grapples with an emergent system of planetary urbanism, traditional strands of theorizing retain their usefulness in coming to terms with developments.

Keywords Asia-Pacific Rim · Planetary urbanism · Urban Studies

1.1 Motivation for Book

Academic books come about in a variety of ways. Some are the culmination of months—and in many cases years—of scholarly work by one or two individuals, resulting in a veritable tome which seeks to make a major, and timely, contribution to a field of scholarship. Others—particularly edited collections—can be organized with a military precision, designating a predetermined structure to be strictly adhered to by the contributing authors, and as such producing a work of comparison, but not necessarily nuance, in understandings of particular fields of inquiry.

The edited collection that we have brought together here represents yet another type of book, and one which stands in what is rapidly becoming a tradition of producing edited collections from the annual conferences of the Urban Affairs Association (UAA), in particular the "Special Track" on Asia and the Pacific Rim that has been convened as part of every UAA annual conference since 2013. For this type of book, a call for papers is released around a theme which is recognized to have some level of urgency in a particular field of inquiry. In their Introduction to the Special Edition of the *Journal of Urban Affairs* arising from the 2013 UAA Conference, Simone Gross et al. (2014) pressed the case that there was a need for collections examining issues in Urban Studies in Asia and the Pacific Rim for two broad reasons. First, the increasing relative importance of the Asia-Pacific as an element of the planetary urban, and urbanizing, population. Second, that much of the literature in Urban Studies has focused upon Europe and the United States, and as such it is important to redress the gap in scholarship and more general understanding.

Five years hence, with the edited collection presented here arising from the 2016 UAA conference held in San Diego in April of that year, the logic of these two reasons has been maintained, perhaps with even more cogency. Arguably, in 2013 and immediately prior to this, it made intuitive sense to dissect the analytic concept of "Asia" into its (then) constituent components—"South," "North," and "Southeast"—and to examine issues in Urban Studies either within these geographic subdivisions (see, for example, Rimmer and Dick 2009) or compared with "The West" (see Vogel et al. 2010), or indeed through a particular lens of analysis, whether this be ideational (see, for instance, Künkel and Mayer 2012) or via a specific national or diasporic focus (Eng and Davidson 2008). Notably, within these broad parameters, Australasia held a status—geographic, also economic and moral—which was defined, problematically, against "The East."

However, since that time debates in urban theory have progressed, from concerns with dichotomies between (for example) metropolitan reform on the one hand and metropolitan regionalism on the other, to embrace and extend concepts of rescaling (see, for example, Schmid et al. 2018) within a system of planetary urbanism (see Robinson 2016). Moreover, the sheer pace of change is at times difficult to grasp (see, for example, Ye 2018). At the same time, we need to be cognizant that Urban Studies is path dependent. As such, we ought to be aware that accounts of urbanization and development, traditionally conceived, can be just as relevant in contemporary settings as they have been for several decades. With this in mind, we now move to an account of the parts and chapters of the book.

1.2 Outline of Chapters

Part I of the book is organized around the theme of "borders" and consists of three chapters. Chapter 2 by Serghei Golunov is a study of the two Russian borderland towns of Korsakov on the southern coast of the island of Sakhalin, 160 km to the immediate north of the Japanese island of Hokkaido, and Yuzhno-Kurilsk, located on the island of Kunashir, directly east of Hokkaido. As such, we are immediately reminded of how diverse the region of Asia and the Pacific Rim is. We are also reminded that, while our attention in the field of Urban Studies might be drawn to urbanization and the concurrent processes of transformation associated with this in major metropoles, as a discipline Urban Studies is equally well equipped to examine smaller urban centers; the populations of Korsakov and Yuzhno-Kurilsk are 35,000 and 6350, respectively. Both centers could be pointed to as examples of "peri-urbanism" that formed the principal lens of analysis of the first edited collection to arise from a "Special Track" on Asia and the Pacific Rim at the 2013 Urban Affairs Conference in San Francisco in 2013 (see Simone Gross et al. 2014). Yet it is the emphasis of borderlands and borders more specifically that form the theoretical background and locus of method for Professor Golunov's contribution, as both centers are situated within the Russian–Japanese maritime border, a fact highlighted by the two nation-states not sharing a land border, alongside their complex geopolitical history.

In order to conceptualize this, Golunov initially discusses "borderlands" in terms of the more general idea of "proximity," before underscoring that, while borders can often be conceived as immutable, especially when entailed in the task of governance, there is much to suggest that they are very much the opposite: malleable, liminal, open to both physical manipulation and psychological interpretation and development over time. Chapter 2 interrogates these developments by utilizing three more finely granulated ideas. Initially, borders are discussed as "outposts": both Korsakov and Yuzhno-Kurlisk are replete with competing markers of Russian-Soviet ethnic-national identity set against Japanese claims of cultural affinity and, in the case of Yuzhno-Kurlisk, sovereignty, and characterized by other policy trajectories reflecting "outpost logic," including a salient security presence and investment in economic

development. Yet (and perhaps ironically) both towns are fruitfully conceived, second, as "emerging destinations," principally for Japanese tourists, who are eager to visit due to pre-Soviet ancestral history, with the Japanese Government offering economic assistance to both centers, particularly in the immediate post-Soviet era, leading to protests and charges of "creeping occupation." Golunov also suggests that, third, we should think of both centers as playing "gateway function" roles to their respective interiors, acting, with variable levels of success, as funnels for tourism and broader economic development.

Chapter 2 thus interweaves a theoretically sophisticated lens on the self-Other dichotomy in the context of a temporal and historically situated example. It also excavates the strategic theoretical question of the relationship of Urban Studies on the one hand to Border Studies on the other, and the extent to which alternative, more historically dominant, perspectives (International Relations and Cultural Anthropology, for example) can be usefully folded into an Urban-Border theoretical nexus.

In Chap. 3, Husnul Fitri Sundoko, Roos Akbar, Denny Zulkaidi, and Teti Armiati Argo explore the concept of borders from the perspective of urban (in)security, developing the idea of "the defensive global city" in an age of terror and applying this to Jakarta in international perspective. Akin with Golunov's use of the concept of borders in Chap. 2, Sundoko et al. take issue with the implicit contemporary association of insecurity with the threat of political terrorism, reminding us that there are other sources of the phenomenon (in Indonesia, geological instability looms large). The authors nevertheless categorize responses to terrorism as falling into one of three categories: those grounded in the rule of law; those with a basis in the structural design of cities; and those derived from spatial strategy, arguing that urban planning can make a strategic contribution to urban security.

Yet theirs is a nuanced political understanding: the challenge is to contribute to "the defensive city" without cruelling the freedoms—and responsibilities—of the citizens of urban areas. Following from an account of the changing dimensions of urban terror, specifically a trend toward targeting civilians, the authors remind us that urban planning has always been engaged with the practicalities of urban security in mind. This has included (for example) the decentralization of US cities in the post-WWII era, through to the more prosaic (and ever more commonplace) phenomenon of gated communities. Yet they also assert that urban planning in Southeast Asia has focused overwhelmingly on the goal of economic development, and suggest that it is timely to explore a closer relationship between urban planning and urban security. Sundoko et al. caution against what might be labeled as a *reductionism* to Islamic extremism when thinking terrorism and urban terrorism, pointing out that there are many types of political movements that have claimed to have committed terrorist acts for multiple reasons, across Thailand, the Philippines, and Indonesia in particular in Southeast Asia.

The authors then examine Jakarta as an example of a megacity that has experienced multiple terrorist attacks that have overwhelmingly been spatially centralized in the city. In pointing to ways to promote "the defensive city," they suggest that current policies for responding to terrorism can adapt, but ought not to mimic, lessons learned from other contexts globally. In particular, they caution against adopting a policy

stance that defaults to either the privatization of security or an overt reliance upon surveillance, or indeed an increased salience of security personnel, instead arguing for the cogency of an "eyes on the street" approach in addition to measures arising from an approach grounded in spatial strategy.

In Chap. 4, Kane Pham provides an account, and critique, of the truly Wagnerian process of metropolitan reform, surrounded as it has been by heated conjecture and refutation, that has characterized unfolding changes to the governance of Sydney, Australia. Commencing from the observation that discussion of "global cities" has gradually given way to a more expansive dialogue concerned with metropolitan regionalism *writ large*, Pham notes that the longstanding debate and reform processes in Sydney can be read as reflecting various schools of urban theory—metropolitan government, public choice, new regionalism, and rescaling/reterritorialization.

From this point, and akin to the approach developed by Golunov in Chap. 2, Pham combines a critical discussion of borders as liminal, plural, and malleable with discussions of territory, place, space, and network (Jessop et al. 2008) to excavate the developing rapid-fire planning strategies for Sydney from 2005 to the present. The author reveals an increasing sophistication of strategies that has seen a shift away from the label of "Sydney Global City" (as ubiquitous as this once was) to "A Metropolis of Three Cities" for the metropolitan region. Notwithstanding the inconsistencies between the various documents that are interrogated, what the analysis reveals is the collision, at a fundamental level, of two very different approaches to the task of urban governance: On the one hand, one grounded in planning, resting on epistemologically realist foundations and driven by the imperatives for economic (and, to a lesser extent, social) development. On the other, the articulation of spatial strategies resting on ideational claims, that is, grounded in notions of belonging—and, as such, difference for the Sydney metropolitan region and subdivisions therein.

Through Pham's analysis it is clear that various state agencies (state and statutory, local, and federal), while existing in a complex nested hierarchy, have recognized the importance of blending realist and the ideational paradigms—an acknowledgement that borders have to be negotiated and owned to provide a platform for equitable and inclusive development. However, the author makes clear that this "fuzziness" ought not to detract from the strong-arm, if somewhat inconsistent, strategies of the state government and its ancillary bodies, particularly when set against historically embedded local and community and community actors.

Part II of the book, "Challenges," examines the public policy space in particular urban—and national—settings and can be generally characterized as *developmentalist* in nature, in that all the contributions critically examine pressing problems engendered by rapid structural change, in particular urbanization. In Chap. 5, Deden Rukmana examines the pressing issue of housing the urban poor in Indonesia generally and in Jakarta in particular. The author contextualizes his discussion by underscoring that housing is a critical issue in the Global South, particularly in urban areas, with more than half of all citizens residing in slums, which is understood mainly as a consequence of urbanization. This is particularly the case in Indonesia, where the urban population increased by approximately 35% in the years 2000–2015. The most salient result of this has been a surge in demand for urban

dwellings—approximately 850,000 per year—with combined production by private and government developers meeting only half this demand.

According to Rukmana, policy measures taken to address this problem in the last decade have included the PERUMNAS policy for national housing development: the cross-subsidization program—where private developers are required, but only sometimes provide a stipulated quantum of social housing as part of their projects—and self-help housing policies, including the *Kampung Deret Program* that was initiated by the Jakarta City Government in 2013. The author "sets the scene" for this policy by providing an account of the core elements of Indonesia's decentralization policies under the comprehensive *reformasi* program initiated in May 1998, noting inter alia that since 2013 over 70% of all new houses (i.e., in urban and rural areas) have been self-built. The author then examines in more detail the development of individual strands of housing policy at national, provincial, and local levels up to the present, before focusing upon the *Kampung Deret Program* that was initiated under the *Housing and Settlement Areas Law 1/2011*, which stipulated that provincial and local (i.e., including city) governments have responsibility for housing. Within the context of market failure for low income housing—*Kampungs* constitute 60–70% of housing for all of Jakarta's residents—alongside complex systems of land tenure comprising formal, semiformal, and informal elements, Rukmana provides a detailed assessment of the *Kampung Deret Program*, which was aimed specifically at the informal sector.

The program represented a significant investment by the City of Jakarta—US$17.83 million or US$4500 for each dwelling—and exempted residents from contributing to the costs of building, with their contribution limited to rent. It also allowed them to oversee construction. Moreover, planning for the program was characterized by collaboration between city officials, residents, and private consultants. Through in-depth qualitative interviews, the author goes some way to establishing that the program was a success, with the key policy goal of "upgrading without displacement" being achieved. In his assessment, the alternative pathway for redevelopment, namely by legalizing occupation before embarking upon construction, may have foundered in bureaucracy and (possibly) corruption.

What emerges from this analysis is a success story of housing provision for the urban poor within the context of decentralized fiscal and administrative arrangements. This adds weight to the argument—both theoretical and empirical—that significant capital investment by subnational governments can shift the burden away from an area's poorest residents and offer them dignity in an affordable urban environment.

Chapter 6 by Faisal Shaheen again engages with the problem of urban poverty, and responses to this phenomenon, this time by providing a comparative analysis of Karachi and Lahore's engagement with the Informal Sector (IS). Surveying the literature, the author highlights the definitive characteristics of the IS as a cohort that is excluded from the primary mechanisms of basic service provision, including education, health care, and engagement with the judiciary. The IS is also characterized by low wage levels borne from labor-intensive, low-technology work. Moreover, Shaheen makes the point that most discussions of the IS engage with the concept as one of an economic (under)class, rather than one that is deserving of basic services.

The author also identifies four factors that have stymied the engagement of the state—central, provincial, city, and local—with the IS, namely: the effect of neoliberal agendas on the capacity of governments; rapid industrialization of urban areas at the expense of the rural; the pervasive threat of economic insecurity faced by the urban poor, as evidenced in a basic lack of essential services; and what he refers to as the "institutional erosion" of municipal services that has taken place alongside national neoliberal agendas, resulting in the emergence of maleficent local bureaucracies. Shaheen also underscores that, while the activities of foreign interventionist states and global non-state actors (financial institutions, NGOs) is for the most part welcome and in many instances badly needed, it nevertheless results in "context-less" policy that is particularly insensitive to urban and local governments, preferring instead to coalesce with "community-based organizations" (CBOs).

Against this backdrop, Shaheen is interested in two questions in the comparative contexts of Karachi and Lahore, namely how do policy roles and capacity differ across the tiers of Pakistan's federal polity, and where the potential lies for engaging with the IS. The author provides revealing socioeconomic portraits of the cities under consideration, including striking differences between the older, more centralized and more industrialized Karachi in Sindh and Lahore, placed as it is within a more agricultural (food and textile production) and decentralized (but nevertheless populous) Punjab. Examining an assortment of artifacts (policy documents; budgets, etc.) alongside conducting 26 in-depth interviews across both provincial and city administrations, the author ventures that upper tier (i.e., federal, provincial) engagement with the IS has been hampered by three structural factors, namely: the dominance of the national government in Pakistan's federal system; variations in fiscal capacity across the respective provinces; and a misalignment of taxing and spending responsibilities. He also identifies a tendency of national and provincial governments to be captured by "mega project solutions," as well as the problem of perennial political (as opposed to partisan) change hampering a consistent policy approach.

Nor are municipal governments immune from criticism, with the putative benefits of decentralization, particularly in relation to service delivery, often proving elusive for the IS. Shaheen provides a good account of both cities' governance structures, inclusive of statutory authorities, and also the interaction between these and international development agencies and donors, including the Japanese International Cooperation Agency (JICA) in Karachi's basic service provision and the role of the Asia Development Bank (ADB) in Lahore. This is matched with an account of the roles of CBOs in attempting to address the difficulties thrown up by the burgeoning IS in both cities. Additionally, Shaheen notes that both the provinces of Sindh and Punjab are home to what he refers to as "urban-facing ministries," yet both are challenged by service delivery to the IS. Moreover, intergovernmental relations are impeded by a lack of consistency relating to (for example) a consistent approach to budgeting and a lack of leadership. Shaheen concludes that the hope displayed in community-municipal engagement addressing the problem of service delivery to the

IS is not misplaced, across a range basic services—housing, water, sanitation—even transportation. Yet the challenge of capacity, at all levels of government, ought to be addressed systemically, particularly as a mechanism to address corrupt private practice.

The next two contributions focus on China. Chapter 7, by Ming Yin, examines the impact of rapid urbanization on educational equality and educational equity in China's rapidly expanding urban centers. Initially, Yin makes the point that China's growth has been very rapid in recent decades—inclusive of rapid urbanization, with 70% of the population (approximately one billion people) projected to live in cities by 2030. Yet the author insists that this rate of growth ought not to overshadow the reality that it is still a developing country, home (for instance) to the second-largest number of poor people after India, and that public policy in education, including levels of public investment, quality school enrolment, the examination system, the college entrance system, and the rise of private tutoring all must be appropriately governed, particularly when seeking to address the disparity between educational outcomes for urban and rural residents and especially for those people who have migrated to urban areas and their children.

To explore these issues Yin makes an important, yet often overlooked, distinction between equality in education on the one hand—defined, in essence, as comprising objective measures of the distribution of goods, services, and outcomes available to particular populations—and equity in education on the other, which is a normative assessment as to whether said patterns of distribution are just. The danger for China is that market reforms will be accompanied by an increase in normatively indefensible stratification and polarization. Yin argues that cities are a double-edged sword in this regard: while they are associated with positive outcomes accruing from rapid economic growth, they can also accrue negative outcomes, inclusive of social immobility and the development of an urban class. In concert with educational theory for many decades, Yin argues that education policy is key to addressing this challenge.

Providing a comparative, longitudinal account of China's rapid economic development, the author highlights that policy has strongly encouraged rapid growth in specific areas, key to which has been the relaxing of *hukou*—the system of household registration which prohibited population movement—to engender urbanization and industrial development. Yet this relaxation has been only partial, with migrant populations and their children still excluded from key public services such as housing, health, and education. The author notes that China's central government has invested significantly in education—a nominal increase of 3.7 in the period 2001–2012—which was further encouraged by the Compulsory Education Law of 2006. The results have been impressive; yet there are a small minority that have been left behind, which includes not only the children of urbanized migrant workers living in cities (who aspire to public education but can be obliged to resort to the option of expensive, yet lower quality private education). It also includes "rural left-behind children," who, due to the relatively higher cost of living in cities, are forced to stay in rural areas with relatives and, as such, lack various forms of family capital, which is then reflected in educational outcomes. In Yin's view, it is the state—at central, provincial, and

local levels—that ought to address these disparities, rather than leaving the gap in educational opportunity to be addressed by the market.

In Chap. 8, Pengfei Li sets himself the task of systematically defining the Chinese suburb. The discussion is set against any implicit—and erroneous—transposition of the western (principally US) suburb to China. On this account, the Western "suburb" is understood, both geopolitically and experientially, as a type of community that develops as a dormitory urban area to service expanding urban centers, then includes a greater range of services within its own area and is eventually subject to incorporation and, as such, achieves a distinct political jurisdiction, accompanied by a place-based, upward-facing politics.

Contrary to this singular understanding, Li identifies two urban forms that are commonly denoted as "suburbs," yet are radically different: the "urban–rural fringe zone" and the "suburb" proper, which provide radically different modes of life. The paths to these two types reside in contemporary processes, namely urban development on the one hand and suburban redevelopment on the other, which are nevertheless closely connected. Yet resting behind these salient contemporary developments is an intense path dependency, within which the importance of regionalism in China is paramount. In explaining this, the author traces the development of urban patterns in Feudal and Imperial, then Socialist China, to arrive at the current administrative structure from the municipality down.

Li then further delineates between the suburb in most contemporary Chinese cities as subdistrict neighborhoods outside the city center, which are mainly residential, and the more complex system of internal fragmentation that characterizes China's megacities. In the latter, the rapidity of recent development, wherein what were once suburban districts that have developed to high-density areas, is emphasized. Returning to his original distinction between "urban fringe zones" and "suburbs," the author documents citizens' lived experiences of their urban environments, with the importance of *hukou* discussed by Ming Yin in Chap. 7 also emphasized. On this account, it is the urban–rural fringe zones, which, despite being closer to the city centers, have been "left behind," contrasting with China's suburbs proper, which are ostensibly more prosperous, but can be gated communities and lack vibrancy in their public spaces.

Chapters 4 through 8 in Part II of this book are concerned with what might be labeled "traditional" policy concerns: housing (in Indonesia and China), education (China), and the issue of informal settlements in Pakistan. All of these discussions, directly or otherwise, are broadly framed by the issue of equity in service provision in several of the key rapidly growing cities in Asia. By contrast, Chap. 9, by Russell M. Smith and Prasad Pathak, examines the issues of policy for sustainability and "smart cities" in India. As with many of the discussions in this book, the underlying challenge facing India—at national and subnational levels—is the sheer scale of urbanization: Smith and Pathak conjecture that the urban population of India is expected to increase from 420 million in 2011 to approximately 800 million in 2050; at present there are already 52 urban centers with a population of over one million. The authors stress the opportunities arising from these changes (particularly those derived from economies of scale), while at the same time arguing that the danger is that planning for these

changes will be overrun by the pace of change. From their discussion, it is clear that the issue of sustainability, broadly conceived, is currently framing a range of policy responses to this challenge.

Examining first the issue of urban sustainability, akin with several other chapters in this book, the authors provide an overview of the broad shape of urban policy in India historically from the time of independence in 1947 through to the present, emphasizing the national government's preference for balanced growth in small and medium-sized urban centers until the mid-1980s. From this point, the narrative includes a move away from policy design and provision of services by governments to incorporate privatization and Public-Private Partnerships. However, in the case of India, as with many other polities in the Asia-Pacific, it is clear that the hand of central government has still played a substantial role in shaping overall policy responses.

Discussing "Green Ratings Systems," the authors identify two main systems: LEED-India (Leadership in Energy and Environmental Design) and GRIHA (Green Rating for Integrated Habitat and Assessment). LEED-India in the national arm of a global ratings organization. In India, it is administered by the Indian Green Business Council (IGBC) and includes a ratings system for both businesses and homes, focusing upon measuring various elements of sustainability (water use, energy efficiency, and materials selection, for example). Alternatively, the authors label GRIHA as an "Indigenous Green Rating System." Rather than focusing on design and construction, it is more concerned with sustainable building practices and techniques, and incorporates important site-specific factors. While the adoption of both systems is voluntary, it is clear from the authors' account that government agencies—for example, schools—also subscribe to the ratings systems provided by them.

The authors choose to examine the case studies of the ICT luxury hotel chain monitored by LEED-India and government office buildings in Uttar Pradesh to illustrate the workings of these different systems. Alternatively, the AMRUT Yojana scheme, initiated in 2011, is a Government of India (GOI) program that is designed to provide basic services to all households (water and wastewater, public spaces, and public transport with a view to reducing air pollution and adequate stormwater systems). It represents significant state investment—US$80 billion over the four years from 2015–2016 to 2019–2020—and funds are provided through a process of application.

Smith and Pathak examine the operation of AMRUT in Surat City before moving to discuss India's "Smart Cities Mission," which is administered by the GOI's Ministry for Urban Development.

Tracing the development of policy, they note that in 2015 the GOI announced plans for100 "smart cities" on the basis of an application process, with cities assisted in this task by private consultants. The first 20 "Smart Cities" were announced in January 2016, with two consecutive cohorts of 40 cities each to be announced subsequently. The chapter then examines the case studies of New Delhi and Jaipur in some detail, providing an account of the rollout of technology (LED lighting, CCTV, wi-fi access, etc.). Among various insights, the authors note that the "Smart Cities" vision by the Ministry of Urban Development is not confined to what might be labeled an obsession with technology. On the contrary: the policy includes designation for smart cities on the basis of "retrofitting," "redevelopment," "greenfield development," and "pan-city

development" strategies. Yet the authors also note that the policy has attracted some criticisms, in particular relating to the tardiness of project completion, the use of Special Purpose [financial] Vehicles (SPVs) and confusion as to the prioritization of the policy amidst concurrent government programs.

Part III of the book, "Futures," comprises Chap. 10 by Anthony Ip and Thomas Yip. It takes a step back from the nation-state and sector-focused nature of Parts I and II to provide a strategic—and appreciative—portrait of the potential for the development of the Asia-Pacific Rim from the perspective of Hong Kong. Through this lens, city regions and strategic trade zones form the loci of analysis to envision a Sino-Southeast Asian-Australasian "Necklace" of development zones, incorporating three megalopolises. The first of these—and perhaps the most frequently traversed in the literature (see, for example, Vogel et al. 2010)—is the Hong Kong-Macau-Pearl River Delta (HK-MO-PRD) complex, with Hong Kong as the "Super Connector of China." The authors document several "critical junctures": air–sea connectivity; the relationship between key centers (Guangzhou, Shenzhen, Dongguan, and Nansha); city-branding and entrepreneurial talents; and the potential for new collaborative governance structures.

The second node in Ip and Yip's "necklace" is far less well traversed in the academic literature, namely Vientiane-Central Laos. The authors see this as the pivot point for the "Last Flying Geese" of Indochina and ASEAN. Development in this zone can be place-based, forming a north–south link from Kunming in Southwest China to Vientiane and traversing the east–west economic corridor through the new Savannakhet Special Economic Zone, but which can nevertheless be informed by the experiences of the mature ASEAN partners. Here, the authors suggest the development of a joint PRD Innovation System, the establishment of regional office of the Hong Kong Asia Infrastructure Investment Bank (AIIB), and the further development of ASEAN-based education and training schemes. The first "critical juncture" here resides in the land and river-linked connectivity, with China already investing heavily in infrastructure in this regard; the second "critical juncture" recognizes the links between water, energy, and the economy, with a focus on the environment; the third underscores the need for branding, entrepreneurial talents, and a possible greater role in the area for Australasia and Korea, also recognizing the potential for cultural and healthcare tourism.

The third node in the authors' "Necklace" is Darwin, capital city of Australia's Northern Territory, and its surrounds. In this strategy, Northern Australia generally is envisioned as a 'hinterland" to Asia and Southeast Asia in particular. The "critical junctures" are air-sea connectivity across the northern zone of Asia and incorporating Timor and Indonesia toward Singapore and Malaysia; a resource and technology and education-based economy, with a key role for Australia's tertiary education sector; and a greater involvement of advanced human capital from East and Southeast Asia in the Darwin region. Taken as a whole, Chap. 10 offers an empirically grounded, yet bold, vision which takes up the challenge of rescaling beyond both the nation-state and city region. In terms of Savitch's (2010, p. 13) taxonomy or rescaling, it places to one side the more familiar categories of "consolidation," "multitiered jurisdictions," and "linked jurisdictions" to present a view that is based upon "jumped scales." This

view sees Asia and the Pacific Rim connected, particularly, along a north–south axis and where developments in both the US and, far further afield, Europe are tangential to an Asia that is composed of different regional zones and orderings, but with an integrity of its own.

We hope the ten chapters in this volume offer a window to see the Asia and the Pacific Rim from the authors' critical lenses. It is difficult to encompass the entire region in any one volume, since countries, cities, and communities are so different everywhere. However, we do see common lessons. Jakarta's "upgrading without displacement" initiative might serve well as an alternative for growth-led urban redevelopment in China. Sydney's metropolitan vision and policy can shed light on how cities link together while maintaining uniqueness in the path of globalization. India's smart city movement echoes what is occurring in Europe but on a much larger scale and with ambitious goals. Let's embrace both the peculiarity and similarity of these cases and learn from them. Again, as was stated in the edited collection to arise from the 2013 UAA Conference "Special Track" on Asia and the Pacific Rim, we hope that the chapters in this modest volume add to our understanding of the most dynamic and interesting region of our planet, for Urban Studies and indeed more broadly.

References

Eng, K.-P. K., & Davidson, A. P. (Eds.). (2008). *At home in the Chinese diaspora: Memories, identities and belongings*. London: Palgrave Macmillan.

Jessop, B., Brenner, N., & Jones, M. (2008). Theorizing sociospatial relations. *Environment and Planning D: Society and Space, 26*(3), 389–401.

Künkel, J., & Mayer, M. (Eds.). (2012). *Neoliberal urbanism and its contestations: Crossing theoretical boundaries*. London: Palgrave Macmillan.

Rimmer, P. J., & Dick, H. (Eds.). (2009). *The city in Southeast Asia: Patterns, processes and policy*. Honolulu: University of Hawai'i Press.

Robinson, J. (2016). Thinking cities through elsewhere: Comparative tactics for a more global urban studies. *Progress in Human Geography, 40*(1), 3–29.

Savitch, H. (2010). Rescaling for a global world. In R. K. Vogel, H. V. Savitch, J. Xu, A. G. O. Yeh, A. Sancton, P. Kantor, P. Newman, et al. (Eds.), Governing global city regions in China and the West. *Progress in Planning, 73,* 11–16.

Schmid, C., Karaman, O., Kallenberger, P., Kockelkorn, A., Sawyer, L., Streule, M., et al. (2018). Towards a new vocabulary of urbanization processes: A comparative approach. *Urban Studies, 55*(1), 19–52.

Simone Gross, J., Ye, L., & Legates, R. (2014). Asia and the Pacific Rim: The new peri-urbanization and urban theory. *Journal of Urban Affairs, 36*(S1), 309–314.

Vogel, R. K., Savitch, H. V., Xu, J., Yeh, A. G. O., Sancton, A., Kantor, P., et al. (Eds.). (2010). Governing global city regions in China and the West. *Progress in Planning, 73,* 11–16.

Ye, L. (2018). Introduction: A new path of urbanization and urban governance in China. In L. Ye (Ed.), *Urbanization and urban governance in China: Issues, challenges and development* (pp. 1–10). London: Palgrave Macmillan.

Part I
Borders

Chapter 2
Russian Borderland Towns *Vis-à-Vis* the Japanese Other: Outposts, Destinations, and Gateways

Serghei Golunov

Abstract This chapter focuses on the two Russian Asia-Pacific seaport towns of Korsakov and Yuzhno-Kurilsk, situated in the Russian–Japanese maritime borderland area in the northeast Pacific. It scrutinizes the influence of the Japanese Other on the post-Soviet development of these towns, taking the conceptual perspective of Border Studies as a departure point, highlighting the ambivalence of borders (barrier and exclusion; permeability and bridging). To marry the Border Studies perspective with the Urban Studies perspective, I focus on categorizing the functions of borderland cities interacting with the Other as "outposts", "gateways", and "destinations". The towns of Korsakov and Yuzhno-Kurilsk perform all three functions at once for Japanese visitors. I argue that in both cases, improved political relations and liberalized cross-border movement have not eroded, and in some respects have reinforced, the towns' outpost roles and identities; moreover, in the case of Yuzhno-Kurilsk, it has inspired a revitalization of autocratic policies. At the same time, the desire to become more attractive destinations for tourists has prompted the authorities of both towns to recognize the previously eschewed legitimacy of a Japanese past and to revitalize the towns' central places.

Keywords Borderland cities · Border Studies · Russian–Japanese borderland Border cities · Urban Studies

2.1 Introduction

Korsakov and Yuzhno-Kurilsk are Russian seaport towns adjacent to Hokkaido, the northernmost island of Japan. Korsakov is located at the southern end of the island of Sakhalin, off the eastern coast of Russia directly to the north of Hokkaido. Yuzhno-Kurilsk is located at the center of the island of Kunashir, directly east of Hokkaido (see Fig. 2.1). Both towns are situated in the historically contested

S. Golunov (✉)
Faculty of Law, Kyushu University, 6-10-1, Hakozaki, Higashi-Ku, Fukuoka 812-8581, Japan
e-mail: sergei.golunov@gmail.com

B. Grant et al. (eds.), *Metropolitan Governance in Asia and the Pacific Rim*,
https://doi.org/10.1007/978-981-13-0206-0_2

Fig. 2.1 Korsakov and Yuzhno-Kurilsk. *Source* The Author

Russian–Japanese maritime borderland area. Despite having small populations (35,000 and 6350, respectively), the towns are crucial as gateways for Sakhalin Island and the Kuril Islands, respectively. Until 1945, both towns were Japanese territories and currently, Japan claims the territory of Yuzhno-Kurilsk as part of the disputed Kunashir Island. At the end of World War II, the islands of Sakhalin and Kunashir were taken by Soviet troops and the local Japanese populations were expelled. From then until the early 1990s, there was no lasting contact between the towns and Japan. However, from the early 1990s, dramatically intensified human contact, particularly an influx of Japanese visitors, gave the towns new opportunities for development and also created some development challenges. This chapter examines the two towns' perspectives on the Japanese Other. I identify three significant roles of the towns toward the Japanese Other—"outpost", "destination", and "gateway"—and discuss them in turn. I argue that these perspectives are complex and ambiguous, resulting in both alarmist practices and, contradictorily, attempts to exploit new opportunities by welcoming more tourists, business people, and other desirable visitors. This can manifest itself in political lobbying with the aims of inter alia changing immigration and transportation development policies, communication practices, historical memory policies, and programs of infrastructure development.

Conceptually, the discussion is grounded partially in Urban Studies but more squarely in the disciplinary perspective of Border Studies. While both towns are situated in the Japanese–Russian borderland, not only physical but also psychological borders are important. At the same time, borders have an intrinsic ambivalence; they are not only barriers but also connectors, and the role of a maritime border city is especially important in this respect. Methodologically, the research is a comparative case study, analyzing the post-Soviet development of the towns. To complement this comparative approach, I have used qualitative event analysis to process relevant information identified from the official sites of the two towns' municipal governments (Administratsia Korsakovskogo gorodskogo okruga n.d.[a]; Munitsipal'noe obrazovanie n.d.) and the Integrum World Wide Russian language media database (Integrum World Wide n.d.) by keywords ([name of the town] + "Japan" or "Japanese") for the period 1991–2016 inclusive. These data were analyzed to identify events and trends relevant to the towns' outpost, destination, and gateway roles toward the Japanese Other.

2.2 Conceptual Background

It is commonplace in contemporary Border Studies to assume that borders perform the role of filters, permitting desirable and tolerated visitors while excluding undesirable and illegal ones (Anderson and O'Dowd 1999). These exclusion and restriction functions are paid more attention than the bridging and permeability roles that borders can also be seen to play. In this respect, exclusion of the Other from an established territorial order is represented as the outcome of the three-pillar process of bordering, ordering, and othering (Van Houtum et al. 2003). Further, those borders that differentiate "us" from the Other are not just physical lines and infrastructures, but also practices and discourses that manifest themselves in "education, the media, novels, memorials, ceremonies and spectacles" (Paasi 1998: 76).

Nevertheless, bridging and permeability are also paid some attention in contemporary Border Studies scholarship. A border can be represented as a zone that orders and, in some cases, facilitates contacts, for example as a liminal space, a combination of barriers and gateways, a membrane, or an interface (Cooper and Rumford 2013). The consociation approach to conflict transformation argues that geographical borders can facilitate contacts, at least in some cases, as the existence of a trustworthy border makes a group more secure and more ready to communicate with the potentially dangerous Other (Anderson 2008). Borders and borderlands themselves can also become attractive cross-border destinations for tourists wishing to experience border crossings, observe fortification infrastructures (e.g., fences), and experience destinations in two countries for the price of one (Timothy 2001). This latter argument is in line with Cooper and Rumford's (2013) concept of border monumentalizing, which highlights the trend of utilizing border locations for celebrating cultural encounters by means of monuments and other kinds of art.

One should take into account that the Japanese–Russian borderland is atypical. Japan and Russia have no land border and, as we have already seen, part of their maritime border is disputed. Japan claims the four big Southern Kuril and Habomai islands (see Fig. 2.1) and some islets. While the waters between the shore of Hokkaido island and some nearby disputed Kuril and Habomai islands are entirely the territory of either Russia or Japan, the distance between the islands of Hokkaido and Sakhalin is greater than the two countries' territorial water zones in this area.[1] Thus, in dispute are not merely territorial waters but also the exclusive economic zones of Russia and Japan surrounding these areas.

Taking into account the vagueness of the Japanese–Russian borderland's formal status, this borderland can be conceptualized as "proximity". While indicating a nearby relational position of territories, proximity is a very subjective concept, and to a large extent has been determined by both the perceptions and interests of significant actors interacting with other parties (Torre and Rallet 2005). Proximity is also a multidimensional concept, having not only geographical or spatial elements but also institutional, cognitive, networking, and other dimensions (Torre and Zuindeau 2009). While some economic geographers argue that spatial proximity does not matter much if it is not supplemented with adequate transportation access (Torre and Rallet 2005), other researchers maintain that these conditions can be quickly redesigned if participants in cooperation have enough willingness and creativity to take advantage of potential opportunities (Starr 2005; Starr and Thomas 2002). It is also important that geographical proximity is considered a powerful factor for legitimizing cooperation (Torre and Rallet 2005), and thus even "deficient" proximities can be used by regional governments to (for example) obtain funding from central governments. However, geographical proximity is not always a benefit, as it can also be accompanied by undesirable neighboring actors and, as such, can provoke various kinds of conflicts (Torre and Zuindeau 2009).

The key problem in applying the concept of proximity to this context is that economic geographers usually employ it for different environments, that is, for areas not divided by strong political borders and for those connected by good transportation and communications (see, for example, Amisse et al. 2012; Boussauw et al. 2012; Grossetti 2008). Moreover, it is sometimes highlighted that the concept of geographical proximity is not relevant for cases where the existence of short distances between actors is not supplemented with easy transportation access in a short time (see, for example, Jeuring and Haartsen 2017; Torre and Rallet 2005). Still, some International Relations scholars' conceptualizations look to be more flexible in this respect, as they highlight not so much accessibility but rather such largely subjective and changeable drivers as opportunities and willingness of actors to exploit these opportunities as the key factors making geographical proximities workable (see, for example, Starr and Thomas 2002; Starr 2005). Some economic geographers point out that geographical proximity is a powerful factor for legitimizing cooperating institutions, and it is also a privileged discourse within regional development policies that could imply that

[1]It should be taken into account that Japan claims just 5.5 km for its territorial waters in the La Perouse/Soya Strait instead of the usual 22 km.

regional governments and other actors are interested in exploiting even now "deficient" proximities to obtain funding for their development (see, for example, Gibson et al. 2010; Torre and Rallet 2005).

As my case studies demonstrate, geographical proximity is largely relational and subjective, and is working selectively for various categories of visitors. The distance between Yuzhno-Kurilsk and the Japanese town of Nemuro, on the eastern side of Hokkaido, is 82 km. The distance between Korsakov and the Japanese town of Wakkanai, on the northern tip of Hokkaido, is 161 km. These distances are usually too far for intensive cooperation across a land border. However, the cities are geographically each other's closest international partners. As will be discussed below, the problem of distance is exacerbated by the scarcity of options for passenger transportation. But while the notion of geographical proximity often does not work for individual tourists and visitors, it can be more convenient for Russian poachers who sell their catches to Japanese ports, for Russian buyers of Japanese used cars, for Japanese and Russian participants of exchange programs traveling by special ship runs, and for officials traveling by charter flights.

Borderland cities are highly important for cross-border interaction as tourist destinations, gateways, transportation nodes, and economic centers. Maritime border cities are typically more important than cities at land borders, as the majority of international maritime ports are located in urban settlements. Within Border Studies scholarship, borderland cities are predominantly conceptualized in light of close cross-border cooperation. Studies have focused in particular on twin cities and cross-border metropolitan governance (see, for example, Eskelinen and Kotilainen 2005; Hamedinger 2011; Joenniemi 2017), rather than on conceptualizing those borderland cities that are not involved in highly intensive cross-border cooperation (as is the case in the Japanese–Russian borderland). It can be argued that such cities are different from "non-border" ones, as they tend to produce more specific (and often more pluralistic) cultures, institutions, aesthetic meaning, and social-economic structures, alongside symbolisms of spaces and organizations (Gasparini 2014). I argue that through the lens of their interaction with the Other, such borderland cities can be conceptualized as outposts, gateways, and tourist destinations, taking into account that a city can perform at least two of these roles simultaneously.

The outpost city perspective (emphasizing alarmism and exclusion) is largely undertheorized. Some research shows that strong feelings of security and community can be important features of a borderland city's identity (Gasparini 2014). The "gateway" concept is usually applied to those cities that are used to access destinations "behind"; in essence, they are portals. It is argued that the gateway position influences the shape of a service area that becomes extended outward in the direction to/from the core area (Burghardt 1971). In this chapter, I argue that the notion of gateway can be employed not only in terms of easy transportation access to the core territory but also in terms of access to symbolic places such as ancestral graves and other objects, and places having symbolic meanings related to the historical past.

To conceptualize the tourist destination perspective, one can resort to Border Tourism and Urban Tourism Studies scholarship. Many borderland cities serve as major destinations for tourists, who can be attracted by the romantic appeal of border

crossings and border landscapes. Moreover, attractive prices or quality differences in goods and services in a neighbor state, together with small travel costs, unusual cultural experiences, an opportunity to save on visiting two countries at once for citizens of a third country, historic memories, and nostalgia can all be reasons why particular destinations attract tourists (Timothy 2001). From an Urban Tourism perspective, cities are important tourist destinations as places with major travel nodes, high populations, high concentrations of commerce, industry, and finance facilities, and a variety of services (education, health, government administration, etc.) (Blank 1994). In some cases, the development of tourism contributes to the regeneration of unappealing production centers, at least partially reshaping their economies (Selby 2004). In many cases, urban tourism precincts emerge to serve visitors; these are "characterized by a concentration of tourist-related land uses, such as restaurants, attractions and nightlife" (Hayllar and Griffin 2005: 517). This role is often—particularly in the case of small towns—played by a city's central business district that has been renovated to attract tourists (Howard 2010).

It ought to be recognized that not all types of visitors are unconditionally attractive for destination cities. Some of them (e.g., criminals) are definitely not attractive and are to be discouraged, while the perception of Others is mixed. For example, framing visitors as important contributors to a city's prosperity can conflict with attributing to them bad behavior in public or some other threats. In some cases, cities (or city-based groups or companies) apply a range of strategies to exclude unwanted categories of people from some areas, to inhibit their access to some points of attraction, to discourage unwanted visitors, and so on. The policy of "purifying" a city's prominent public places from undesirable and marginal categories of people (usually disadvantaged inhabitants) is labeled "urban revanchism" by some scholars (Van Eijk 2010). As the case of the Russian–Japanese borderland shows, visitors can become partially undesirable (and are thus viewed as Others to be suppressed psychologically) if they are considered suspicious or contributing to the dissemination of "wrong" interpretations of history or contemporary territorial issues.

Summing up, the cities of Korsakov and Yuzhno-Kurilsk can be conceptualized as borderland cities functioning toward the Japanese Other as important nodes for Russian border policies, simultaneously being outposts, gateways, and tourist (or visitors') destinations. On the one hand, they can try to make profits from their geographic proximity. On the other hand, they can apply exclusion toward visitors. In the empirical part of the work, I consider outpost, gateway, and destination functions of Korsakov and Yuzhno-Kurilsk toward Japanese visitors, together with the latter's impact on these cities' infrastructural and cultural development.

2.3 Geography and Pre-1990s History

Despite being the largest settlement of the Kuril Islands and hosting nearly 40% of their entire population, Yuzho-Kurilsk is a very small town, with a population

of 7196 in 2015 (Federal State Statistics Service 2015).[2] The island of Kunashir is claimed by Japan and the town is perceived in Russia as the main outpost on the contested territory. The town's main industry is fishing and this shapes both legal and illegal economies, with the latter comprising principally illegal sales of catches to Japan. There is a very serious problem with the town's accessibility: Although recently renovated, the operational capacity of Mendeleevo Airport is heavily weather dependent and the sea passenger route from Korsakov is long and does not operate during severe stormy weather.

In contrast, Korsakov is a much bigger town, with a population of 32,962 in 2015 (Federal State Statistics Service 2015). However, unlike Yuzno-Kurilsk, the population of Korsakov has been declining, losing approximately 27% since the last Soviet population census of 1989.[3] The town also specializes in fishing and associated activities. Apart from this, it has one of the largest seaports in the Russian Far East and is adjacent to the only liquid natural gas plant in the region, the production of which is distributed via the specialized Prigorodnoye seaport. As is the case with Yuznno-Kurilsk, Korsakov is home to a large border guard unit that patrols Russian waters and is tasked with combatting poaching. In 2015, Korsakov was one of two Russian ports having passenger links with Japan, mainly the 160-km route between Korsakov and the closest Japanese town of Wakkanai. During 2015–2016, the existing ferry route was suspended because it was unprofitable. In August 2016, passenger communication was resumed but the ferryboat was replaced with a passenger boat of much smaller capacity.

Both border towns have been historically contested. The territory of Yuzhno-Kurilsk was not under Russian/Soviet control before 1945 and the Japanese fishing village Furukamappu (having several dozen houses, a post office, telegraph, and shops) existed until 1946. The territory of present-day Korsakov has changed hands several times. In 1853, a Russian naval expedition led by Gennady Nevelskoy founded the Post Muravyovsky fortress near the Tomari-Aniva Ainu settlement frequented by Japanese traders. Russians evacuated the fort a year later, because of the Crimean War, and then they returned in 1869 and refounded a settlement called Post Korsakovsky, named after the (then) Governor-General of Eastern Siberia, Mikhail Korsakov. The settlement became a prominent penal colony in the Russian Empire, with male convicts forming the bulk of its population. Southern Sakhalin was ceded to Japan as a result of the 1904–1905 Russo–Japanese war. In 1908, Post Korsakovsky was renamed Odomari and became the capital of Karafuto (Southern Sakhalin) Prefecture. Under the 40-year Japanese rule, Odomari evolved into a well-developed town, with a port that facilitated ferry communication between Sakhalin and Hokkaido, a railway station, a city tram line, and a number of enterprises (fish processing, seaweed processing, paper making, distilling, knitting, etc.) (Administratsia Korsakovskogo gorodskogo okruga n.d.[b]). The town's population exceeded 20,000 by the early 1940s.

[2]The population grew noticeably in the 2010s when the Russian government allocated large funds for modernizing the city's infrastructure and creating new jobs.

[3]In 1989, the population of Korsakov was 45,096 (see Demoskop Weekly n.d.).

At the end of World War II, in August 1945, Odomari was seized by Soviet troops. The next year the settlement was given its current name and the process of the near-total deportation of the Japanese population commenced. The Japanese were replaced by migrants from other parts of the Soviet Union, many of whom were attracted by lavish benefits. Both Korsakov and Yuzhno-Kurilsk were turned into "Cold War" Soviet borderland outposts against the U.S–Japan alliance. Korsakov lost its previous role as gateway city connecting with Hokkaido. As Japan did not recognize Soviet possession of the Southern Kurils, Yuzhno-Kurilsk became a part of the contested territory that reinforced its outpost identity by becoming a target of Japanese claims.

The Soviet authorities failed to preserve Japanese infrastructural, economic, and cultural heritage. Most Japanese enterprises were either closed or repurposed, the railway transportation network was degraded, and most Japanese buildings were demolished or became degraded over time. These outpost roles were supported with both a military presence and historical memorials evoking the Russian and Soviet past. It is revealing that the town of Korsakov was again given the name of a high-standing official of the Russian Empire (this practice was not typical for the Soviet Union) and that some central streets in both towns were renamed in commemoration of the 1945 "liberation from Japanese militarism" (e.g., [General] Gnechko Street in Yuzhno-Kurilsk and Krasnoflotskaya/Red Fleet Street in Korsakov). In 1989, a monument to "Russian discoverers of the Kuril Islands", highlighting 1739 as a starting date for these discoveries, was opened in Yuzhno-Kurilsk to celebrate the 250th anniversary of the discoveries and to emphasize the longevity of the Russian presence. At the same time, Soviet authorities did their best to erase historical memories of Japanese heritage. Any attempts to study heritage beyond very negative official standard representations—as a "temporary occupation"—or to preserve Japanese historical artifacts (including graves) were strongly discouraged (Litvintsev n.d.; Pasiukov 2015).

In several important respects, the development trajectories of the two towns under Soviet rule were different. Korsakov, already a developed town, largely remained where it was during Japanese rule while continuing to grow primarily southwards. In contrast, Yuzhno-Kurilsk shifted uphill after the devastating 1953 tsunami and again after the disastrous 1994 earthquake (see Kuril'skie ostrova n.d.). Being much smaller than Korsakov, Yuzhno-Kurilsk had poor transportation and social infrastructure: There were almost no asphalt roads, poor cultural and entertainment facilities, and the town's local history museum did not open until 1990 (Yuzhno-Kuril'skiy kraevedcheskiy muzei 2016).

2.4 Remaining as Outposts

Since the late 1980s, the liberalization of the Soviet regime has witnessed the opening up of the Soviet Far East to the external world, including to Japan. In 1991, the port of Korsakov was opened for foreign vessels and in 1992 the Russian–Japanese exchange

program targeting the inhabitants of the disputed Kuril Islands was launched. This made possible numerous cross-border trips by crew members, tourists, business people and informal entrepreneurs, officials, and exchange program participants. The severe economic crisis and dramatic reduction of government funding that followed the dissolution of the USSR in the 1990s made Japan a vitally important partner for Russian Far Eastern regions. However, a greater number of opened borders and intensified cross-border interactions led not only to improved bilateral relations and mutual public perceptions but also to actualizing the perceived threat of Japanese expansion. More intense political and economic relations, coupled with the severe Russian economic crisis, apparently gave Japan more opportunities to fulfill its territorial claims for the Southern Kuril Islands and to occupy key positions in Russia's Far East economy.

The exchange programs between Japan (primarily Northern Hokkaido) and the South Kurils launched in 1992 resulted in 20,900 Japanese visits and 9300 Russian visits in 1992–2015 (Kisiliov 2015). The bulk of the Japanese who came to Yuzhno-Kurilsk arrived for specific purposes. Japanese humanitarian aid to, and exchange contacts with, the disputed islands focused to a large extent on Yuzhno-Kurilsk and fulfilled several purposes, including not only establishing routine contacts and giving the Japanese opportunities to visit the graves of ancestors but also strengthening Japanese influence and attempting to change Russian public opinion on the territorial issue. Japanese visits contributed to establishing long-lasting personal contacts between Russian and Japanese participants, teaching Japanese to inhabitants of the disputed islands, demonstrating the advantages of Japanese life (for example, in medicine, education, and patterns of consumption), and promoting the Japanese viewpoint about the territorial dispute. It is understandable that the typical attitude of Yuzhno-Kurilsk locals toward Japanese visitors was ambivalent. On the one hand, the close personal contacts they established with many Japanese people helped bridge a cultural gap. Inhabitants of Yuzhno-Kurilsk were also very grateful to the Japanese for the lavish humanitarian aid provided in the hard times in the 1990s and early 2000s. On the other hand, some Yuzhno-Kurilsk officials and inhabitants perceived the Japanese visits with a degree of suspicion and irritation when visitors tried to convince locals of Japanese sovereignty over disputed islands (Korzhuk 2011; Sazhneva 2011).

Concurrently, and indeed somewhat contradictorily, the Japanese Government attempted to block access to Yuzhno-Kurilsk and other disputed places for most Japanese nationals and visitors from other countries. According to government policy, Japanese visitors were to refrain from actions that might be considered as a legal precedent of Japanese recognition of Russian sovereignty. In this respect, no documents testifying that the islands were the part of Russian territory were to be accepted by Japanese nationals. In 2009, when Russia introduced immigration cards for foreign citizens, some Japanese visits to Yuznho-Kurilsk were thwarted as Japanese officials refused to fill in these cards (Oratai 2009). While these incidents were ultimately settled by bilateral governmental negotiations (Japanese exchange visitors were not forced to fill in immigration cards), the problem has periodically created tensions. There have also been some cases when those Japanese nationals who entered

the disputed territory without governmental authorization were invited "for a talk" after their visits (News.mail.ru 2011) and third-country nationals and enterprises who showed their intention to enter these territories were threatened with having problems with Japan (Frolov 2005).

From the Russian side, Japanese visits to the disputed territories were profitable. They contributed to an overall improvement in Moscow's relations with Tokyo and such visits were often accompanied by Japanese humanitarian aid, which was a crucially important contribution to the disputed islands' economic survival in the 1990s and the first half of 2000s. While Japanese visitors were largely welcomed by locals in Yuzhno-Kurilsk as agents of cooperation, they were also considered with mistrust and as promoters of politically wrong viewpoints and as agents of "creeping occupation" of the disputed territories (Uchebnik-online.com n.d.). Some Japanese visits to Yuzhno-Kurilsk were accompanied by protest actions (Zhunussov 2003).

The perceived threat of Japanese creeping occupation had several implications for the development of Yuzhno-Kurilsk and to some extent even of Korsakov. Yuzhno-Kurilsk inhabitants proved to be well disposed toward more intensive contacts with Japanese visitors, but even in the most difficult years of the 1990s at least half the population opposed the idea of ceding the disputed islands to Japan (Bologov 2016).

Most likely because of the perceived Japanese "soft power" threat, coupled with flourishing smuggling and poaching southwards from both Sakhalin and Kunashir Islands (smuggling and poaching chains mostly either originated or ended in Japan), both Korsakov and Yuznho-Kurilsk remained militarized, hosting significant numbers of military, border guard, and naval forces. Moreover, until 2016, Yuzhno-Kurilsk remained part of a border security zone, for both Russian and foreign nationals were required to obtain special permits for entry well in advance.

The historical identity that highlighted the "Russianness" of the two towns, while directly or indirectly rejecting their Japanese past, was not only preserved but also reinforced by post-Soviet policies. Both Korsakov and Yuzhno-Kurilsk maintained monuments of Vladimir Lenin in the towns' central places, symbolizing nostalgia about and respect for the Soviet past. Both towns continued to demonstrate very careful and devoted attitudes to monuments to Soviet Marines, who "liberated" the towns from "Japanese militarists". These monuments continued to be symbolic centers of annual commemoration ceremonies. Additionally, several monuments in honor of those who stood up for the "Russianness" of the place were erected in post-Soviet Korsakov—for example, in honor of Governor-General Mikhail Korsakov (1993), the founding of Post Muravyovsky in 1853 (2003), Admiral Gennady Nevelskoy (2013), and the crew of the cruiser "Novik" for defending the shore near the city against the Japanese navy in 1905 (2014).

In Yuzhno-Kurilsk, a Russian Orthodox temple was built in 1999, disassembled in 2011, and rebuilt in 2012, and was explicitly represented as an outpost of the Russian physical and spiritual frontier by some clergymen (Pravmir.ru 2012). Notably, Japanese visitors were not admitted to this temple until 2011 (Litvintsev n.d.). By contrast, rediscovering the Japanese heritage (discussed below), which was ultimately allowed in the 1990s, was conducted at a far slower pace.

This outpost logic, coupled with economic self-sufficiency (though international cooperation was welcomed in principle), was highlighted in Federal Targeted Programs for Social-Economic Development of the Kuril Islands that particularly emphasized the islands' strategic importance for Russia. The program for 2007–2015 was particularly lavish: The sum of approximately US$64,700 per capita[4] was allocated and a large part of this was directed toward the needs of Yuzhno-Kurilsk. As a result of the program's implementation, and despite delays and embezzlement, a number of residential buildings, some sports facilities, a kindergarten, and the first asphalt roads were built, while the airport, a quay, and a geothermal station which supplied the town with electrical power were all renovated. Apart from supporting and encouraging local inhabitants and preventing further massive out-migration, the program served to demonstrate to the Japanese Other the futility of the hope that the disputed islands would be returned. It looks as if the Russian authorities succeeded in achieving such a purpose, at least partially, as the scale of infrastructure development impressed and in some cases even demoralized Japanese visitors in the late 2000s and 2010s (TIA Ostrova 2008). The fate of an almost equally large-scale federal targeted program for 2016–2025 was put into question by the new Russian economic crisis that started in 2014.

2.5 Emerging Destinations

The fall of the "iron curtain" and the partial liberalization of the immigration regime for foreign visitors also turned these Russian borderland urban centers into potential destinations. However, poor transportation hindered accessibility, and it was not enough for Russian cities, situated at a relatively close distance to Japan, to appeal based just on geographic proximity. Indeed, such cities could also appeal on the basis of their "exoticism" for the Japanese Other and as places that previously belonged to Japan, and the administrators and businesses in the cities could try to construct some new, unfamiliar, or "forgotten" urban places as attractions.

Both Korsakov and Yuzhno-Kurilsk had very little to offer in terms of sightseeing. Neither town had sufficient money to keep the infrastructure in good condition at the time of the 1990s economic crisis and so only a very limited number of objects (administrative buildings, local history museums, schools, monuments, joint enterprises under construction) were shown to Japanese guests. Urban landscapes were shaped by nearly uniform and poorly maintained residential and industrial buildings, while numerous dumps, rusty vehicles, and very dusty roads met the eyes of Japanese visitors and were repeatedly mentioned in their travel blogs (Amihappy.exblog.jp 2007; Asunaro ojisan no tsubuyaki 2008).

Additionally, in 1994 Yuzhno-Kurilsk was heavily damaged by a powerful earthquake that caused long-lasting social disorganization. Local inhabitants were reluctant to put the town's appearance in order because of political and economic uncer-

[4]Calculated from: (Rosavtodor 2014), with use of Historical Exchange Rates (OXF n.d.).

tainty (Volkhonsky 2006). At least until the 2000s, there was a very serious problem of inadequate amenities for Japanese exchange visitors: Only several features of the urban landscape, such as the local history museum, a school, and a library were presented to them. Yuzhno-Kurilsk even had a serious problem with lodging visitors who, until the end of the 1990s, usually stayed in the private houses of local inhabitants (Golovnin 1999). Given these conditions, it is perhaps not surprising that the House of Friendship (also nicknamed Muneo House after the controversial Japanese politician Muneo Suzuki, who initiated the project), erected by the Japanese in 1999, for a long time remained the most prominent building in the town and was where most Russian–Japanese cultural events and even some important meetings of the local parliament were held. Despite the house offering only very modest hostel-style accommodation, it became the place where most Japanese stayed. The role of Japanese culture in the town was revealed by implementing the Japanese tradition of taking one's shoes off before entry, a tradition which visitors have been required to observe.

Eventually, Japanese visits resulted in what might be termed "place-making" policies and regeneration in both Korsakov and Yuzhno-Kurilsk. After decades of neglect, new signs of the Japanese presence started to appear in the 1990s. Apart from Japanese-sponsored business offices in Korsakov and "Muneo House" in Yuzhno-Kurilsk, at least two relevant monuments were built in Korsakov in the 1990s and early 2000s. The Japanese-sponsored monument, commemorating the Japanese inhabitants of Odomari who perished in 1945, has become the first highly visible and legitimate representation of the town's Japanese history. The Wakkanai Park and commemorative sign in honor of 10 years of the Korsakov-Wakkanai sister city relations, opened by Korsakov's municipal authorities in 2001, celebrate the history of post-Soviet friendship with Japan. Both places have become significant landmarks for Japanese visitors.

In the 1990s, local authorities started restoring and maintaining Japanese graves to encourage visits by those wishing to commemorate their ancestors who are buried near both Korsakov and Yuzhno-Kurilsk. The most remarkable Japanese building in Korsakov—the former building of a branch of Hokkaido Takushoku Bank—was proclaimed a state-protected architectural monument in 1999, although no funds were allocated for its restoration at the time.

As the economic situation in Russia, and in Sakhalin Province, in particular, started to improve (largely because of its large oil-and-gas reserves), municipal authorities made some small steps to make their towns more appealing for visitors. However, major signs of regeneration did not start to appear until the 2010s. As mentioned above, the regeneration of Yuzhno-Kurilsk occurred largely due to the 2007–2015 Federal Targeted Program for Social-Economic Development of the Kuril Islands. This was largely driven by outpost logic, but it was also influenced by a desire to look more decent to the eyes of visitors (Baryshnikov 2011) and to attract more Russian and foreign tourists. Newly built public places, such as Alyonka Kindergarten (opened in 2010) and the community center (opened in 2014), were now proudly paraded to Japanese participants in the exchange programs, alongside the new Orthodox church (opened in 2012), the construction of which was not directly funded from

the federal budget but indirectly supported by federal and regional authorities. The construction of asphalt roads and the renovation of the airport and the quay have made the city more accessible and appealing for tourists and other visitors. The subsequent decision by the Russian government to exclude Yuzhno-Kurilsk from the border security zone also contributed to this overall openness and appeal.

In the case of Korsakov, systematic efforts to make the town a tourist destination have hinged around turning the port of Korsakov into a significant stopping point for cruise liners since 2013. As of 2015, 12,500 tourists, mainly Japanese, have stopped in the port as they traveled on seven liners around Japan, across Asia, and between Asia and North America (Novosti Sakhalina 2015). This is despite the port of Korsakov not having a suitable terminal, with passengers delivered ashore by small boats provided by the liners. To make the town more attractive for the cruise tourists, provincial and municipal authorities initiated the renovation of the Lenin Square (the city's central square) and the community center "Ocean" (where folk groups perform). Priorities for 2017–2018 include building an adequate passenger ship terminal and establishing the pedestrian zone in Sovetskaya Street adjacent to Lenin Square. The influx of Japanese cruise tourists has prompted authorities to allocate funds for the restoration of the Hokkaido Takushoku Bank building, with plans to give it to a local history museum upon completion (Golubkova 2016). If successful, the restoration could make Korsakov into a familiar place for Japanese tourists that would help utilize geographic proximity to make the town a full-fledged tourist destination.

It should be noted that the significant renovation works in the town center have not resulted in improvements to its "non-tourist" residential districts in any marked sense. Moreover, there have been local political controversies. In 2015, the town mayor was dismissed by the governor of Sakhalin Province, justified by poor city management, including the disastrous state of the roads and the failure to repair ramshackle buildings (SakhaNews 2015). Despite this, the town is considered wealthy by Russian standards.

2.6 Partially Restoring the Gateway Function

The fallen "iron curtain" and the liberalization of the immigration regime for Japanese visitors to Russia has partially restored Korsakov's importance as a main gateway to the provincial center of the island of Sakhlin (now Yuzhno-Sakhalinsk, formerly Toyohara). Korsakov has the evident advantage of shorter (some 40 km) distance over its potential competitors—the seaports of Nevelsk and Kholmsk on the western side of the island directly facing the coastline of Russia. Construction of the only Russian Prigorodnoye LNG plant near Korsakov, opened in 2009, has further increased the town's importance as a transit destination for Japanese business visitors. Yet the gateway importance of Korsakov has been only partially restored, as the flow of people between Hokkaido and Sakhalin has not been as intensive as in the times when the southern part of the island was the Japanese Province of Karafuto. Moreover, the

sea passenger route between Wakkanai and Korsakov now competes with the more convenient airline route between Sapporo and Yuzhno-Sakhalinsk.

This gateway position has controversially affected Korsakov's post-Soviet development. On the one hand, it has made it a host port for the most important ferry passenger line between Japan (the town of Wakkanai) and Russia, which has contributed to establishing sister city relationships with Wakkanai and Mombetsu (on the eastern coast of Hokkaido) and to exchange visits between these towns, and to more active cross-border business contacts. On the other hand, until 2013 the town was little more than a revolving door for the vast majority of Japanese visitors, most of whom went to Yuzhno-Sakhalinsk directly from the Korsakov seaport by a rented bus or even by taxi immediately after arriving and going through immigration and customs formalities. Turning Korsakov into a significant stop for cruise liners, lobbied for by regional authorities, not least because of its gateway position, has made the town a tourist destination in itself and provided an impetus for its regeneration. Still, the tourist destination importance of Korsakov has remained limited, as most cruise tourists stop there for just a few hours, virtually no new hotels for international travelers have emerged, and a large number of cruise tourists prefer to go to Yuzhno-Sakhalinsk instead of staying in Korsakov (Novosti Sakhalina 2015).

Unlike Korsakov, Yuzhno-Kurilsk has been one of the most important destinations for those Japanese who has visited the Kuril Islands in the post-Soviet period. Despite the town's poor infrastructure, visitors have had no good alternative. It can be argued that Yuzhno-Kurilsk has served the role of the gateway to Kunashir and other Southern Kuril islands' natural sites, and also to symbolic sites of Kunashir's Japanese past (especially to Japanese graves situated near the town). Indeed, for a significant majority of Japanese visitors, the main attractions are not the unimpressive urban sites of Yuzhno-Kurilsk, but rather commemorating ancestors, archeological excavation and exploring the island's natural environment. Even recent efforts to revitalize the town by implementing federal targeted programs could hardly make Yuzhno-Kurilsk an especially attractive destination in itself, while the natural environment of the island of Kunashir is much more appealing for those Russians and foreigners who are ready to spend considerable sums of money when they visit.

2.7 Conclusion

This study has considered borderland cities' interactions with the neighboring Other from the perspective of Border Studies, including bordering and bridging practices toward the Other and also relevant urban development trends. Relying on the cases of two Russian towns in the Russian–Japanese borderland, I argue that borderland cities can take ambiguous roles toward the Other, simultaneously being outposts, destinations, and gateways.

The two cases considered in this chapter have, at least, the following implications. First, they demonstrate that improved political relations and liberalized cross-border movement are not sufficient to erode the respective borderland cities' outpost roles

and identities. More intensive interaction with the Other, especially attempts to satisfy territorial claims by covert means (so-called "creeping occupation"), can give rise to a sense of insecurity and reinforce alarmist public opinion and the construction of symbolic borders (e.g., the erection of new national history monuments, placing more emphasis upon military commemoration rites), and may even evoke autocratic policies aimed at demonstrating the futility of the Other's territorial desires, as the case of Yuzhno-Kurilsk suggests.

Second, the efforts to become more valuable destinations for the Japanese Other have prompted the authorities of both cities to recognize the previously rejected legitimacy of the Japanese past and ultimately even to promote the legitimacy of Japanese historical legacy to a limited extent. Limited efforts to exploit the towns' otherness ("Russianness" or "Sovietness") to attract visitors have also been made—a more-or-less systematic revitalization of both towns' central places was embarked upon approximately 20 years after the towns were reopened to the Japanese. Third, partial restoration of Korsakov's gateway position between Hokkaido and Sakhalin Province did little to help in the town's revitalization. Only turning the city into a destination for short-term visitors from cruise liners gave a push to this direction.

To conceptualize borderland cities' multidimensional and ambiguous perspectives toward contacts with the neighboring Other, more and various case studies are needed. These studies could focus on land borderlands instead of maritime ones, to highlight cases with more salient or weakened gateway, destination, and outpost perspectives.

References

Administratsia Korsakovskogo gorodskogo okruga. (n.d.[a]). https://sakh-korsakov.ru. Accessed January 30, 2017.

Administratsia Korsakovskogo gorodskogo okruga. (n.d.[b]). 70 let Korsakovskomu gorodskomu okrugu: http://sakh-korsakov.ru/p1119. Accessed January 30, 2017.

Amihappy.exblog.jp. (2007). Kunashiritō Etorofutō jōriku-ki - 2. Kunashiritō jōriku. May 4: http://amihappy.exblog.jp/m2007-05-01. Accessed January 30, 2017.

Amisse, S., Leroux, I., & Muller, P. (2012). Proximities and logics underlying cluster dynamics: The case of the ornamental horticulture cluster in Maine-et-Loire. *Industry and Innovation, 19*(3), 265–283.

Anderson, J. (2008). Partition, consociation, border-crossing: Some lessons from the national conflict in Ireland/Northern Ireland. *Nations and Nationalism, 14*(1), 85–104.

Anderson, J., & O'Dowd, L. (1999). Borders, border regions and territoriality: Contradictory meanings, changing significance. *Regional Studies, 33*(7), 593–604.

Asunaro ojisan no tsubuyaki. (2008). Jikkō shihai to wa…. July 26: http://asunaroojisan.blog113.fc2.com/blog-entry-1329.html?sp. Accessed January 30, 2017.

Baryshnikov, V. (2011). Yuzhnye Kurily protiv severnyh territoriy. *Radio Svoboda*. February 22: http://www.svoboda.org/content/article/2304909.html. Accessed January 30, 2017.

Blank, U. (1994). Research on urban tourism destinations. In J. Ritchie & Ch. Goeldner (Eds.), *Travel, tourism, and hospitality research* (pp. 181–196). New York: Wiley.

Bologov, P. (2016). Folklendskii stsenarii: Chto Rossia sobiraetsia delat' s Kurilami. *Inosmi.ru*. July 22: http://inosmi.ru/politic/20160722/237285321.html. Accessed January 30, 2017.

Boussauw, K., Neutens, T., & Witlox F. (2012). Relationship between spatial proximity and travel-to-work distance: The effect of the compact city. *Regional Studies, 46*(6), 687–706.
Burghardt, A. (1971). A hypothesis about gateway cities. *Annals of the Association of American Geographers, 61*(2), 269–285.
Cooper, A., & Rumford, C. (2013). Monumentalising the border: Bordering through connectivity. *Mobilities, 8*(1), 107–124.
Demoscope-Weekly. n.d. Vsesoiuznaia perepis' naselenia 1989 g. Chislennost' gorodskogo naselenia RSFSR, eio territorial'nyh edinits, gorodskih poseleniy i gorodskih raionov po polu: http://demoscope.ru/weekly/ssp/rus89_reg2.php. Accessed 30 January, 2017.
Eskelinen, H., & Kotilainen, J. (2005). A vision of a Twin City: Exploring the only case of adjacent urban settlements at the Finnish-Russian Border. *Journal of Borderlands Studies, 20*(2), 31–46.
Federal State Statistics Service. (2015). 29. Chislennost' naselenia gorodov po federal'nym okrugam i sub"ektam Rossiiskoi Federatsii na 1 ianvaria 2015 goda: http://www.gks.ru/free_doc/doc_2015/bul_dr/mun_obr2015.rar. Accessed January 30, 2017.
Frolov, E. (2005). Iaponia zabiraet Kurily v odnostoronnem poriadke. *Kamchatskoye vremya*, September 7.
Gasparini, A. (2014). Belonging and identity in the European border towns: Self-centered borders, hetero-centered borders. *Journal of Borderlands Studies, 29*(2), 165–201.
Gibson, C., Luckmann, S., & Willoughby-Smith, J. (2010). Creativity without borders? Rethinking remoteness and proximity. *Australian Geographer, 41*(1), 25–38.
Golovnin, V. (1999). Na ostrov Kunashir otpravilas' gruppa iaponskih spetsialistov dlia stroitel'stva obshchestvennogo tsentra. *ITAR-TASS. Lenta*, August 19.
Golubkova, N. (2016). Zdanie byvshego iaponskogo banka nachnut restavrirovat' v etom godu. *Sakhalin.info*. April 25: https://www.sakhalin.info/news/114999. Accessed January 30, 2017.
Grossetti, M. (2008). Proximities and embedding effects. *European Planning Studies, 16*(5), 629–642.
Hamedinger, A. (2011). Challenges of governance in two crossborder city regions: 'CENTROPE' and the 'EuRegio Salzburg – Berchtesgadener Land – Traunstein'. *Urban Research & Practice, 4*(2), 153–174.
Hayllar, B., & Griffin, T. (2005). The precinct experience: A phenomenological approach. *Tourism Management, 25,* 517–528.
Howard, R. (2010). Urban tourism districts: A taxonomy and a study of a new proposed type. *Tourism and Hospitality Planning & Development, 7*(4), 415–428.
Integrum World Wide. (n.d.). http://www.integrumworld.com. Accessed January 30, 2017.
Jeuring, J. H. G., & Haartsen, T. (2017). The challenge of proximity: The (un)attractiveness of near-home tourism destinations. *Tourism Geographies, 19*(1), 118–141.
Joenniemi, P. (2017). Others as selves, selves as others: Theorizing city-twinning. *Journal of Borderlands Studies, 32*(4), 429–442.
Kisiliov, S. (2015). Pervyi v etom godu rossii'sko-iaponskii vizovyi obmen ne sostoialsia. *Sakhalin.info*. May 15: https://www.sakhalin.info/news/13.12.2013/102578. Accessed January 30, 2017.
Korzhuk, S. (2011). Khraniteli istorii chiornoi zhemchuzhiny. *Granitsa Rossii*, June 2(20).
Kuril'skie ostrova. (n.d.). Severnye territorii i ih sovremennoe polozhenie: http://www.kuriles.ru/?div=9&id=52. Accessed January 30, 2017.
Litvintsev, D. (n.d.). Rossii'skiy ostrov s iaponskoi dushoi. *Geo.ru*: http://www.geo.ru/puteshestviya/rossiiskii-ostrov-s-yaponskoi-dushoi. Accessed January 30, 2017.
Munitsipal'noe obrazovanie "Yuzhno-Kuril'skii gorodskoi okrug". (n.d.). http://www.yuzhnokurilsk.ru/. Accessed January 30, 2017.
News.mail.ru. (2011). MID Iaponii sozhaleet o poezdke 3 iapontsev na Kunashir po rossiiskim vizam. January 31, https://news.mail.ru/politics/5225240. Accessed January 30, 2017.
Novosti Sakhalina. (2015). Bolee 12,5 tysiach inostrannyh turistov sovershili morskoi kruiz s zahodom na Sahalin. September 3: https://citysakh.ru/news/47234. Accessed January 30, 2015.

Oratai, V. (2009). Iapontsy otkazyvaiutsia ot zapolnenia migratsionnyh kart. *Kommersant-Khabarovsk*, November 26, http://kommersant.ru/doc/1280677. Accessed January 30, 2017.
OXF. (n.d.). Historical exchange rates: https://www.ofx.com/en-us/forex-news/historical-exchange-rates. Accessed December 5, 2017.
Paasi, A. (1998). Boundaries as social processes: Territoriality in the world of flows. *Geopolitics, 3*(1), 69–88.
Pasiukov, P. (2015). Putevoditel' "Pamiatniki istorii i kul'tury perioda gubernatorstva Karafuto" prezentovan v Yuzhno-Sahalinske. *Sakhalin.info*. October 31: https://www.sakhalin.info/news/108248. Accessed January 30, 2017.
Pravmir.ru. (2012). Na kuril'skom ostrove Kunashir otkryt pravoslavnyi hram. December 24: http://www.pravmir.ru/na-kurilskom-ostrove-kunashir-otkryt-pravoslavnyj-xram. Accessed 30 January 30, 2017.
Rosavtodor. (2014). Sistema tselevykh pokazatelei federal'noi tselevoi programmy "Sotsial'no-ekonomicheskoe razvitie Kuril'skikh ostrovov (Sakhalinskaia oblast') na 2007–2015 gody": http://rosavtodor.ru/storage/b/2014/03/26/689_1-5.pdf. Accessed December 5, 2017.
SakhaNews. (2015). Sahalinskii gorod Korsakov: razruha pri biudzhete v 5 mlrd rublei. June 23: http://www.1sn.ru/142317.html. Accessed January 30, 2017.
Sazhneva, Y. (2011). Mezhdu iapontsami i nami – tsunami. *MK.ru*, March 24: http://www.mk.ru/politics/russia/2011/03/24/575513-mezhdu-yapontsami-i-nami-tsunami.html. Accessed May 20, 2017.
Selby, M. (2004). Consuming the city: Conceptualizing and researching urban tourist knowledge. *Tourism Geographies, 6*(2), 186–207.
Starr, H. (2005). Proximity, and spatiality: The geography of international conflict. *International Studies Review, 7*(3), 387–406.
Starr, H., & Thomas, G. (2002). The "nature" of contiguous borders: Ease of interaction, salience, and the analysis of crisis. *International Interactions, 28*(3), 213–235.
TIA Ostrova. (2008). Iaponskih gostei porazilo i napugalo real'noe preobrazovanie Kunashira. May 29: http://www.tia-ostrova.ru/?div=news&id=109064&month=05&year=2008. Accessed 30 January 30, 2017.
Timothy, D. (2001). *Tourism and political boundaries*. London: Routledge.
Torre, A., & Rallet, A. (2005). Proximity and localization. *Regional Studies, 39*(1), 47–59.
Torre, A., & Zuindeau, B. (2009). Proximity economics and environment: Assessment and prospects. *Journal of Environmental Planning and Management, 52*(1), 1–24.
Uchebnik-online.com. (n.d.). 10.5. Kurily – zolotoe dno: http://uchebnik-online.com/129/885.html. Accessed January 30, 2017.
Van Eijk, G. (2010). Exclusionary policies are not just about the 'neoliberal city': A Critique of theories of urban revanchism and the case of Rotterdam. *International Journal of Urban and Regional Research, 34*(4), 820–834.
Van Houtum, H., Kramsch, O., & Zierhofer, W. (2003). B/ordering Space. In H. van Houtum, O. Kramsh, & W. Zierhofer (Eds.), *B/ordering Space* (pp. 1–13). Aldershot: Ashgate.
Volkhonsky, B. (2006). Ostrovnoi zakon. *Kommersant-Vlast*, September 10: http://www.kommersant.ru/doc/711267. Accessed January 30, 2017.
Yuzhno-Kuril'skiy kraevedcheskiy muzei. (2016). Munitsipal'nomu biudzhetnomu uchrezhdeniu kul'tury "Yuzhno-Kuril'skiy kraevedcheskiy muzei" - 25 let. June 1: http://ukmuseum.ru/new.php?id_news=44&copylenco=news. Accessed January 12, 2017.
Zhunussov, O. (2003). Kazaki protiv samuraev. *Izvestia*, June 25: http://izvestia.ru/news/278195. Accessed January 30, 2017.

Chapter 3
Toward a Defensive Global City: Urban (In)security in an Age of Terror—The Case of Jakarta, Indonesia

Husnul Fitri Sundoko, Roos Akbar, Denny Zulkaidi and Teti Armiati Argo

Abstract Urban security is a major challenge for cities across the globe. The attack on the Twin Trade Towers in New York City in September 2001 marked the start of a developing terrorist presence that physically and mentally affects the security and spirit of cities as safe places. This chapter presents the concept of "urban defensive" strategies for global cities as a way to frame the issue of public security. Governments face the challenge of introducing a defensive concept into urban fabrics without simultaneously violating the vibrancy of urban life. While this challenge seems universal, some complexities of urban life in Western society are not matched in many cities in Southeast Asia. This chapter analyses these issues from the perspectives of planning and design, and discusses them in the context of Jakarta, Indonesia.

Keywords Defensive global city · Jakarta · Terrorism · Urban defensive

3.1 Introduction: Global Cities and Security Issues

Ensuring security in cities is a challenging problem worldwide, yet security is vital for stabilizing a city's social and economic development, enhancing its status and reputation, and contributing to the immediate well-being of its citizens. Many cities

H. F. Sundoko (✉)
Indonesia Institute for Defense and Strategic Studies-LESPERSSI, Jl. Petogogan I/30 Blok a Kebayoran Baru, Jakarta Selatan, DKI Jakarta, Indonesia
e-mail: rum1328@yahoo.com

R. Akbar · D. Zulkaidi · T. A. Argo
School of Architecture, Planning and Policy Development, Institute of Techology Bandung (ITB), Gedung Labtek IXA Lantai II, Jl. Ganesha no. 10, Bandung, Jawa Barat, Indonesia
e-mail: rakbar@pl.itb.ac.id

D. Zulkaidi
e-mail: dennyz@pl.itb.ac.id

T. A. Argo
e-mail: targo@pl.itb.ac.id

B. Grant et al. (eds.), *Metropolitan Governance in Asia and the Pacific Rim*,
https://doi.org/10.1007/978-981-13-0206-0_3

are vulnerable to various threats, from both natural and human causes (Godschalk 2003; Swanstrom 2002). For example, some large and densely populated cities are located on or near geological structures that increase the risk of catastrophic impact from natural events such as earthquakes or volcanic eruptions (Chester 2002, cited in Pelling 2003; Clark and Munasinghe 1995). Cities also face social vulnerability, with urban crime and violence experienced by about 60% of inhabitants in some cities every year (Vanderschueren 1996). Living under such conditions increases residents' feelings of insecurity. Because a sense of security has long been considered a fundamental need for individuals (Maslow 1968), the study of urban security should be positioned as the main topic in support of well-being (UN-Habitat 2007).

Cities can increase their urban security in three main ways: the rule of law, structural design, and spatial strategy (Wekerle and Whitzman 1995). Through the spatial approach, in particular, the field of urban planning and design can take a strategic role in supporting and strengthening urban security. Ideally, planning should aim to reduce the risks people face, thereby creating and enhancing stability and security (Connel 2009, cited in Coaffee 2009a). This perspective has become a primary concern in successful urban planning and design (Carmona et al. 2003; Oc and Tiesdell 1999; Preiser 2007).

Among the many social risks encountered by urban citizens, terrorism is considered an extreme threat, and one which tends to increase with a more open society. Some view terrorism as an emerging risk involving technological advancements and contemporary political causes, but historically this type of violence has often been used as both tool and strategy to triumph in political conflict (Hardiman 2003). The term "terror", in the context of conflict and warfare, has been used since the French Revolution; however, experts are still unable to agree on a single definition of the term. One definition of terrorism is an activity that involves four elements: violence; intimidation; the violation of rules, norms, and institutions; and violent attacks targeting civilians (Makinda 2003); another is a violent, criminal act of behavior that is principally conducted to engender fear in certain communities to achieve political goals (National Advisory Committee on Criminal Justice Standard and Goals 1976, cited in Poland 2005). Nevertheless, terrorism always involves violence and intimidation and is politically motivated (White 2012).

Urban terrorism is currently a critical security issue for many cities (see Fig. 3.1). Although terror events are probably not as frequent as less extreme crimes, the intensity of terror acts exceeds the impact of crime, particularly if it is related to psychological fear. Recent incidents in many prominent cities—such as the mass shootings and suicide bombing in Paris (November 13, 2015), the Brussels bombing (March 22, 2016), the Orlando shooting attack (June 12, 2016), the Nice truck attack (July 14, 2016), the Istanbul airport attack (June 28, 2016), car bombing (December 10, 2016), and nightclub shooting (January 1, 2017), the series of terror attacks in London in 2017 (the Westminster attack on March 22, the London Bridge attack on June 3, the Finsbury Park attack on June 19 and the Parsons Green bombing on September 15), the Stockholm vehicle-ramming attack (April 7, 2017), and the Manchester explosion (May 22, 2017)—are just some of the long list of terror attacks (see University of Maryland 2017), all of which escalate feelings of insecurity. These

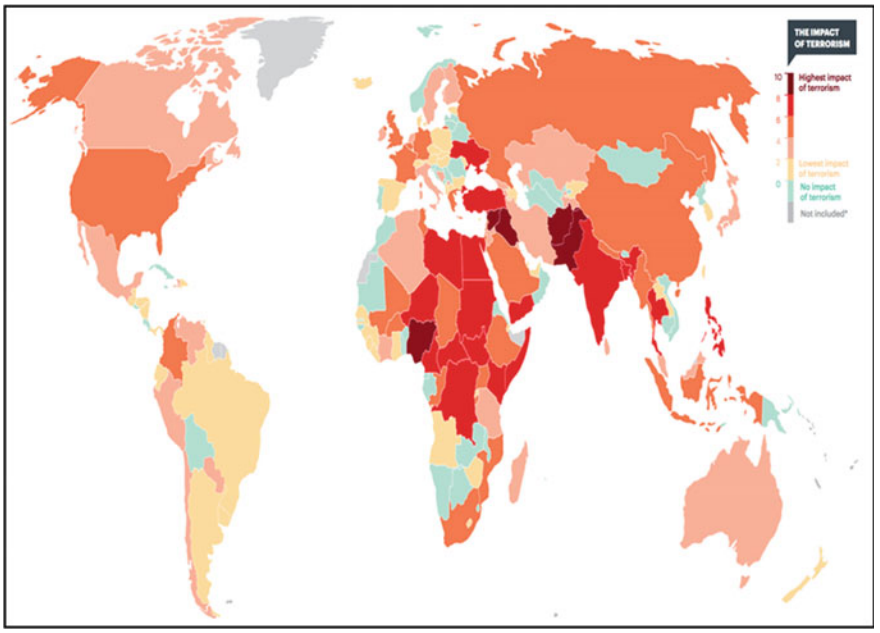

Fig. 3.1 Global terrorism index 2017. *Source* Institute for Economics and Peace (n.d., pp. 10–11)

incidents also underline the fact that for "peaceful countries" (countries without any ongoing war or conflict), the terrorist action is particularly directed at urban areas to achieve maximum impact and to attract global attention.

Urban planners and designers need to address the issue of urban terrorism, in line with the goal of protecting people's lives and freedoms. Consideration should be given not only to preventing terror attacks, but also to minimizing human casualties and physical damage. The goal is to build a defensive city with an urban environment that can resist terrorist attacks.

With these concerns in mind, this chapter posits the concept of "the defensive city" in terms of urban planning and design, focusing on Jakarta, Indonesia. As Jakarta is the main urban target of a terror attack in Southeast Asia, it is important to understand the people's experiences and the city's policy for countering terrorism, in terms of defensive planning and urban design. Much attention is directed toward the strategy of combating terrorism in Indonesia from both preemptive and "hard" approaches (see Indonesia's Anti-Terrorism Law No. 15/2003 and Government Regulation No. 1/2002 articles 26 and 28), but little discussion has addressed the need for a physical and spatial approach as part of defensive strategies aimed at preventing and mitigating terrorism in Indonesia. This chapter aims to fill this gap.

The chapter is divided into six main parts. Section 3.2 briefly describes the phenomenon of terror in urban areas, with the aim of understanding why the city is a principal target of terrorist attacks. Section 3.3 examines the development of defensive

urban planning and design, elucidating many security issues, including terrorism. Section 3.4 explores terrorism in Indonesia and the government's efforts to overcome this threat. Section 3.5 describes public perceptions of terrorism in Jakarta. Section 3.6 discusses the potential of implementing defensive urban planning and design in Jakarta as a strategy to defend the city in an age of terror, and the chapter concludes with a summary in Sect. 3.7.

3.2 The Phenomenon of Urban Terror

Urban areas have always been strategic targets for terrorism because they provide maximum impact. If we look at the development of cities through the lens of the history of warfare, many violent actions, including conflict, war, crime, and terror, have always taken place in cities (Beall 2006; Bugliarello 2003; Coaffee et al. 2009; Sassen 2010). Graham (2004) described these violent actions targeting urban life as "urbicide." Referring to these historical and spatial contexts, urban terrorism can be defined as an act of extreme intimidation and violent action in urban areas that threaten urban life.

Following the attacks on the World Trade Center in New York and the Pentagon in Washington DC on September 11, 2001, terrorism has emerged as an important global issue (Carol et al. 2006; Franks 2009). Several subsequent terrorist attacks seem to be related to the 9/11 incidents in the United States (for example, Bali bombing in 2002, Madrid train bombing in 2004, and London subway bombing in 2005). Terrorism has also become a more salient issue, especially when it is associated with urban security, for several other reasons. First, globalization and technological developments have facilitated and assisted terrorist groups in planning and carrying out terrorist attacks across the globe (Dishman 2005; Vermonte 2003). Second, large-scale violence in the past has had an impact on urban development. In this guise, terror is often equated with warfare because both can cause the destruction of infrastructure and intense fear, although studies of the effect of terrorism on urban development have produced inconclusive results. Glaeser and Shapiro (2002) concluded that terrorism has less impact upon physical urban development than war, while Marcuse (2002, 2004) found that the 9/11 terrorist event in New York led to a slight decentralization of businesses and financial offices from the central business district to fringe areas. These studies revived debates from the post-WWII period in the United States about a defensive dispersal policy for urban design (Ziegler 2005).

Third, many believe that spatial factors can successfully mitigate terror. Smith et al. (2008) examined the spatial pattern of terrorist activities, particularly the distances between terrorist targets and the places where terrorists prepared the attacks, and concluded that terrorist behaviors show regular patterns in relation to urban space. Savitch (2005, 2008) studied several cities that had suffered terrorist attacks and reached the same conclusion. These findings provide important clues about the relation between terrorism and urban space, particularly the spatial elements of urban

design, with particular characteristics of urban environments making some locations more vulnerable.

Fourth, for more than three decades 76% of terror incidents have occurred in urban areas (Savitch 2008). Burton (1975) and Savitch (2008) have argued that some characteristics of cities make them more appealing as targets, including the density and complexity of infrastructure, the concentration of high-value assets, the cities' international profile and their importance as centers of politics, intellectual capital, and higher concentrations of multiethnic groups due to cities' key roles in immigration. These various characteristics become strategic points for terrorist acts in urban areas.

Savitch (2008) classified cities into three types, according to their comparative risk of terrorist attacks. *Global cities* have an international city profile and are well known as leaders in the world cities network; *megacities* have high populations and exponential development rates, and *major cities* provide specific functions and unique attributes to a state. Savitch (2008) argued that this three-city typology describes "first cities" which serve as primary cities that are more susceptible to terrorist attacks.

Trends in urban terrorism demonstrate a change in targets over time (Coaffee 2003, 2009b). In the 1960s, many attacks were carried out on military installations, government buildings, and concentrations of certain ethnic groups; from the early 1990s to the present day there has been a tendency to choose "softer" non-military/government targets in an attempt to achieve wider socioeconomic impacts. In particular, this includes public spaces as main terrorist targets, including business locations and major public transportation facilities.

Within urban terrorism studies, there is also an overarching argument that terrorist action follows particular patterns (Clarke and Newman 2006; Savitch 2005, 2008), typically occurring repeatedly in a specific place, as can be seen in several terrorist attacks in Turkey and the United Kingdom (Savitch 2005). This implies the existence of defined physical environments that provide opportunities for terrorist actions. From this perspective, terrorist groups target cities for particular criteria, thus offering valuable clues to facilitate security planning.

3.3 Defensive Urban Planning: Historical Context and the Perspective from Urban Planning and Design

The goal of urban planning is to improve the quality of life and the environment, both of which require urban security (Carmona et al. 2003; Gold 1970; Oc and Tiesdell 1999). Urban security can be enhanced by using physical design to minimize a sense of *insecurity*. In other words, effective urban planning and design should alter the physical environment to reduce the threat from certain risks (Coaffee 2009a; UN-Habitat 2007).

In anticipation of threats such as conflicts, crimes, and terrorism, urban planning has introduced a model of defensive urban planning emphasizing public security in

urban environments. This terminology can be traced in several theories and practices in the history of urban planning. For instance, Gold (1970) used the concept of "defensive cities" in urban planning, aimed at creating urban security in response to an increase in violent crime. The concept posits that design can be used to prevent and control criminality by using spatial approaches involving urban form and activity planning, the arrangement of physical security features, and spatial management. These can be applied through strategies such as managing the security features of the physical and social environment with a view to enhancing the sense of security and reducing fear (Day et al. 2007).

However, defensive planning is currently less popular than many other forms of urban planning. The golden era of defensive planning has gradually waned since the end of nineteenth century, when architects and planners began to focus more on establishing modern towns and cities to address the increase in urban socioeconomic problems such as overpopulation, a lack of housing, and gentrification. Yet it is important to recognize that urban defensive planning has evolved along with the growth of many cities from ancient to modern times, particularly during periods of warfare where planning for security and defense were the main purpose of building cities (see Coaffee et al. 2009; Morris 1994).

In the age of the fortress city, many ancient civilizations established a configuration of urban defensive planning and design to protect and secure physical power (Morris 1994). The construction of forts surrounding the city created the era of walled cities, where tangible barriers divided inner and outer areas of the city. This division was characteristic of many ancient cities, including Ur (1700 BC), Jericho and Catal Huyuk (8000 BCE), Jerusalem (1800 BC), Uruk and Warka from the Sumerian civilization, and Mohenjo-daro, Harappa, Kalibangan, and Lothal from the ancient Indian civilization (Morris 1994). Within the city walls, the inner city was configured in a basic shape, with the main castle forming the center of government, surrounded by many layers of urban areas which were typically arranged according to the structural position of the social classes in the city. Meanwhile, defensive urban planning and design in the Greek civilization had a different formation; the castle and major central components of the city were similar, but the configuration of layers was more flexible, as seen in Athens, Miletus, and Priene (Morris 1994). Other defensive patterns were introduced by the Romans, such as Castra, the military barracks which later evolved into the main city form (Coaffee et al. 2009; Haldon 1999; Morris 1994; Toy 1984).

In the Middle Ages, many cities in Europe adopted the fortress structure as a core feature of city plans. In addition to the obvious purpose of security, the fortress also furnished protection specifically for the rich (Morris 1994). Fortress cities in what is now the United Kingdom had a slightly different function from similar cities in Europe. In the fourteenth century, the fortress city in the UK tended to vanish because of increased security (Coaffee et al. 2009), with fortresses serving only to manage and protect the city's trade by taxing goods entering through the fortress gates. Meanwhile, in major cities elsewhere the citadel still served principally military/defense functions and, as with the ancient urban form, the fortifications surrounding the city were accompanied by a settlement in concentric layers based on social structures. A similar pattern could also be found in the period of Japanese castle

cities (*Jo-ka-machi*) during the seventeenth–nineteenth centuries as the hallmark of urban planning in Japan at that time (Satoh 1997).

The development of modern urban planning had to incorporate both security issues and the prevailing or changing socio-political situation. The prevalence of the fortress city slowly declined, and some were deliberately demolished to build more modern and secure cities within a certain thematic design philosophy (Coaffee et al. 2009). For example, the initial idea of a monumental and beautiful city introduced by Baron Haussmann in the well-known reconstruction of Paris in the nineteenth century was closely connected to an interest in accommodating security issues into urban development. Haussmann was assigned to plan and design massive structures of modern Paris under the authority of Napoleon III. This project was originally intended to manage public space so that public disorder and potential riots could be controlled by designing boulevards to facilitate the movement of the troops. Haussmann proposed smart designs that combined aesthetic concepts and security goals in the landscape of Paris (Bannister and Fyfe 2001), and the complexity of his design, incorporating long, straight, wide boulevards to ease congestion, can still be seen today. In contrast, defensive urban planning during the Victorian period in London, for example, generated distinctive designs by distributing roadblocks to limit and separate the population according to social classes, and also establishing checkpoints on some roads (Atkins 1993; Coaffee et al. 2009).

In general, many cities around the world shared similar development trajectories, from defensive urban planning in the period of fortress cities through to the early period of modern urban planning (Coaffee et al. 2009). However, at the beginning of the twentieth century, cities in Southeast Asia started to develop distinctively according to local socio-political circumstances. At that time, most cities in Southeast Asia were under colonial authority. It was nearly impossible to develop fine urban planning since constant attacks between local fighters and colonial governments altered many cities into something resembling a battlefield. Sometimes cities were also divided unintentionally into distinct areas that separated opposing socio-political groups for security purposes.

After the end of World War II, when many Southeast Asia countries gained their independence, the field of urban planning and design was directed to develop master plans to reconstruct cities (Kaiser and Godschalk 1995; Taylor 1998). It marked the era of rapid development of various modern planning and design fields, such as spatial planning and land-use to support economic development. Defensive urban planning did not have any place in this fast growth of Southeast Asia cities, as planning was then focused on the impact of economic expansion, particularly developing transportation, including highways, business districts, and housing.

The next era of defensive urban planning was initiated during the Cold War in the 1950s, where close relationships between the planning profession and the military in the United States were established in response to the political situation (Light 2004). The government and some planners instigated the idea of "defensive dispersal" in urban planning and design as a way of reducing the vulnerability of urban areas in the event of a nuclear attack (Dudley 2001; Marshak et al. 1946; Ziegler 2005). For instance, the proposed Project East River in New York City restricted

the growth of urban centers and encouraged settlement into suburban areas. This approach was then corroborated by the Federal-Aid Highway Act of 1956, which aimed to build up the US Interstate Highway System, and the Housing Act of 1954 that facilitated suburbanization (Swanstrom 2002; Tobin 2002; Ziegler 2005). This situation sparked a dramatic boom of new suburbs. In the 1950s, the population in these areas also increased 47% faster than in the centers of cities (Tobin 2002). Iconic suburban development projects such as Levittown, New York and Park Forest, Illinois provided thousands of homes that attracted American families to move to the periphery. Residents had easy access to city centers by highways and personal automobiles, which later created the problem of traffic congestion currently so prevalent across the United States (Nicolaides and Wiese 2006). In short, suburban growth in the Cold War era cannot be separated from the initial idea of defensive planning in urban development.

Toward the end of the twentieth century, defensive urban planning and design began to be implemented at meso- and micro levels. At this time urban life was being transformed, with changing socioeconomic conditions brought about by large-scale developments such as the restructuring of global trade and de-industrialization (Low 1997). The growth of urban centers, the escalation of unemployment, and increasing income gaps in society triggered the emergence of urban slums and a rapid increase in crime, especially in residential and business areas (Oc and Tiesdell 1997). These circumstances enhanced the demand for extensive and higher security levels in the community.

Planners and architects offered two main solutions (Anderson 2013; Fitri et al. 2016): gated communities in residential areas as an extension of the urban fortification model, and the activation of crime prevention theories based on environmental design. These theories included the "defensible spaces" approach (Newman 1972) that deploys security strategies, mainly in residential zones. Defensible spaces theory was a milestone in the development of urban planning and design, which then became popular as the primary strategy in preventing crime. A similar idea, "crime prevention through environmental design" (CPTED) had previously been canvassed in the field of criminology by Jeffery (1971), but it was overlooked at the time because it was too conceptual. Following the popularity of defensible spaces, the concepts and theories of crime prevention based on physical design received much more attention. Further studies of criminology and planning formed the foundation for defensive urban planning theories.

At the beginning of the 2000s, when the world was overwhelmed by 9/11, defensive urban planning was considered as a part of an influential strategy to provide protection in urban areas. Since terrorism has to be treated differently from the various forms of earlier, more conventional threats, it promoted the need to develop a specific strategy of defensive urban planning in accordance with the type of security threat (Branscomb 2006; Carol et al. 2006; Franks 2009). During this period, defensive urban planning was acknowledged as an element of comprehensive anti-terrorism strategies that focused particularly on prevention and protection.

The current incorporation of urban planning and design into anti-terrorism strategies stems from the assumption that the environment can be manipulated to reduce

both the likelihood and the impact of terror incidents (Clarke and Newman 2006; Hopper and Droge 2005; Schneider and Kitchen 2007). This approach assumes that terrorists are rational actors who carefully select their targets to achieve maximum results and avoid failures (Clarke and Newman 2006). Identifying the factors that both facilitate and deter successful terror attacks becomes important. These factors can include physical features, such as building layout, accessibility to public areas, and placement of security features in public spaces. In sum, environmental and physical factors play a pivotal role in providing opportunities and barriers to terrorist attacks. Defensive urban planning for combating terrorism involves arranging the physical setting, particularly security features, to prevent, respond to, and mitigate urban terrorism (Grosskopf 2006; Schneider and Kitchen 2007).

Planning can also deter acts of terrorism by implementing strategies such as zoning and target hardening. Meanwhile, responsive strategies include rebuilding areas that have suffered from previous attacks and reducing the vulnerability to terror attacks and the likely impacts (Schneider and Kitchen 2007). Since terror attacks always target specific places, urban defensive planning and design must also be oriented toward a specific place-based design. For this purpose, planners need to assess the risk levels of particular sites before then determining the appropriate design of physical security features (FEMA 2007; Grosskopf 2006).

However, carrying out ideal defensive urban planning in the context of public space is challenging (Anderson 2013; Schneider and Kitchen 2007). Planners must balance the objectives of security on the one hand and the value and utility of urban space on the other hand. Defensive measures are commonly criticized as ruining the characteristics of the urban fabric, such as accessibility to public space, which is often blocked for security reasons. Restricting public space and utilizing security features for increasing and defending safety can be incompatible. People need to understand demands for increased security may well go hand in hand with reduced freedom in public spaces.

For some Southeast Asian cities, particularly those that experience frequent terrorist attacks, the problem of urban terrorism remains broadly the same as in the West. But the implementation of defensive urban planning in public spaces as a part of anti-terrorism strategies is neither well known nor popular in Southeast Asia. Moreover, the relationship between planners, government, and the military is not as important as it is in the United States, for example. To date, urban planning in Southeast Asian countries has focused mostly on economic development. However, recent increases in urban terrorism mean that governments should consider implementing defensive urban planning strategies to provide safer urban environments.

3.4 Terrorism in Indonesia

The global war on terror has significant impacts on security policies in many countries, including in Southeast Asia. In response to 9/11, Indonesia, together with other countries in the region that belong to the Association of Southeast Asia Nations

(ASEAN), signed the Declaration on Joint Action to Counter Terrorism (DJACT) on November 5, 2001 and the ASEAN Convention on Counter-Terrorism (ACCT) on January 13, 2007 (Banlaoi 2009; Ramakrishna 2005). The Southeast Asia region is currently framed as a location with the fastest growth of extremist groups (Banlaoi 2009; Ruland 2005; Tan 2007;), highlighting the need for governments to adopt anti-terrorism strategies.

But terrorism in this region is dissimilar to terrorism in the West, particularly in the development of terrorist actions and groups. The growth of international and religious-oriented (Islam in this case) terrorist attacks in the United States and many European countries is usually derived from the dissatisfaction and resentment of unfair policies and political attitudes toward Islam, particularly after 9/11 (Gerges 2011). These sentiments have motivated several groups to choose violent methods as a symbol of opposition. There is also speculation, in effect a conspiracy theory, about the reasons for terrorism, which assumes that its purpose is to maintain conflict as a part of the high-end political game (Post 2005). Still, the development of terrorism in the West mainly represents a reaction against Western political discrimination toward Islam. In this case, individual terrorist groups share common enemies, namely Western society and its political affiliations, and the terrorist groups tend to focus on targets in urban areas to elevate the intensity of terror effects.

Currently, terrorist groups in the West also rely upon the circulation of their political voices through social media, where they can find and maintain followers to spread their message. Consequently, the idea of terrorism is not inclusively owned by a certain group of people: any individuals with the same interests can be influenced by a terrorist mindset. Individuals do not need to formally belong to a terrorist group. This creates the possibility of increasing personal violent action as a strategy taught by terrorist groups to achieve their aims. It is thus not surprising that many recent terrorist attacks in the West have been "lone-wolf" style (Kushner 2003).

This situation contrasts with religious terrorism in Southeast Asia, which is still controlled by two "old school" motivations. First is the mandate of holy jihad. Terrorist groups take the meaning of jihad literally, as a fight against enemies of Islam. Unfortunately, enemies can be defined by personal interest, which is then sometimes deliberately set to coincide with political goals and/or agendas. Importantly, these enemies can include governments of both Southeast Asian and Western societies. These groups usually choose to attack a symbol of their enemies, particularly in urban areas. The second motivation derives from the intention to build a "khilafah" as the official government to represent true Islamic laws. This motivation explains the growth and movement of several militant groups rebelling against both national and sub-national governments in Southeast Asia, and can incorporate the tactic of choosing sporadic attacks outside major urban areas. In short, terrorist groups in Southeast Asia are boosted by more diverse motivations, rather than merely the trigger of anger. These motivations create bonding among members of the group, which explains why lone-wolf terrorism is not commonly practiced in Southeast Asia.

In line with this motivational background, Banlaoi (2009) argues that the development of terrorist groups in Southeast Asia can be understood along three lines: the "globalist" or "internationalist" approach, which declares that terrorism in Southeast

Asia emanates from Al-Qaeda; the "regionalist" or "regional security" approach, which argues that terrorism in Southeast Asia is derived from Jemaah Islamiyah (JI); and the "nationalist" or "country" approach that asserts that terrorism ought to be understood by analyzing the domestic conditions of a country which may facilitate homegrown terrorism.

In more detail, although many terrorist groups in Southeast Asia tend to have similar characteristics in terms of terror techniques and the ideology of terror, there are also different political goals among terrorist groups within each country. For example, the formation of the Moro National Liberation Front (MNLF) group in Moro, Philippines initially rose as a response to dissatisfaction and political injustice by the Philippines Government towards the Moro people, who have been fighting for more autonomy (Rodell 2007). Meanwhile, terrorist groups in Indonesia do not derive their motivations merely from discontent over government policies. More complex issues, such as hatred of Western culture, friction among many different social groups, and the motivation to establish particular independent states with different ideologies, can stimulate certain groups to conduct terror attacks (Tan 2007). Currently, Indonesia, Philippines, and Thailand are the three Southeast Asian countries that most frequently suffer terror threats. In Philippines and Thailand, terrorist attacks have occurred predominantly in the southern part of both countries, where the militant group of Abu Sayyaf (Philippines) and several insurgent groups of Southern Thailand are located (Banlaoi 2007; Cox et al. 2009; Pongsudhirak 2007; Rodell 2007). However, in Indonesia, potential targets for terrorist attacks can be found in many parts of the country, being motivated by diverse political goals. For instance, the western and eastern parts are mainly home to local separatist groups (Aceh and Papua Free Movement—see Tan 2007), while the central part (Java Island) is a base for a branch of Islamic militant groups such as Jemaah Islamiyah (Fealy 2007).

It is also worth recalling that terrorism began to flourish in Indonesia in the 1980s after the Afghanistan war and continued to escalate after the fall of the Suharto regime in 1998. Even prior to the 1980s, terrorist activities were prominent and the groups conducting these activities were perceived as engaging in treason because they fought for separation from Indonesia. The Global Terrorism Database (GTD), initiated by the National Consortium for the Study of Terrorism and Responses to Terrorism (START 2017) that collects comprehensive and longitudinal data on terror incidents all over the world, shows that Indonesia has suffered an estimated 769 terror attacks during the past 40 years (Fig. 3.2). According to these figures, 1999 had the highest frequency of terrorist acts, although Kunarto (1999) sees the events of 1999 as merely a warm-up for more terrorist activity with greater scale and intensity.

Associated with the religious and international terrorism that occurred after the 9/11 attacks was the Bali bombing, which took place on October 12, 2002 in the district of Kuta, a long-time favorite destination for international tourists. This was the first large-scale terrorist attack that revealed a terrorist network in Indonesia, the Jemaah Islamiyah (JI), which was supported by Al-Qaeda. In this attack, 202 people were killed, including 88 Australians, 38 Indonesians and people from over 20 other different countries (see, for example, Wahjuwibowo 2015; West 2008). JI was also previously suspected as the main actor behind the series of church

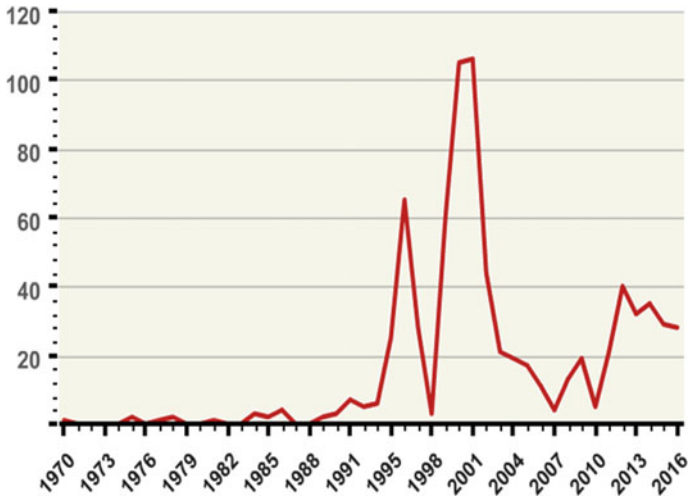

Fig. 3.2 Indonesia: terrorist attacks over time. *Source* Global Terrorism Database—START

bombings on Christmas Eve in 2000 (Karnavian 2015; Manullang 2005). Several offensive operations conducted by the special forces of the Indonesian police to combat this group saw a number of leaders and followers successfully arrested. Unfortunately many were executed by firing squad without proper investigation (Damarjati 2017; Tito 2016). However, JI and another particular terrorist group, namely Jamaah Ansharut Tauhid (JAT) managed to survive and plan many sporadic attacks because of the rapid dissemination of terrorist ideology via terrorist cells and networks (Wahjuwibowo 2015).

Currently, the Islamic State of Iraq and Syria or the Islamic State of Iraq and the Levant (ISIS/ISIL) appears to be a new terrorist group which utilizes information technology to spread its ideology. The growth of many branches of this group in several countries, including Indonesia, means that individual terrorist "cells" do not always have a direct link to the original organization (Kushner 2003). This can be critical because the lack of straight relationship has the ability to enhance lone-wolf terrorism. Although the occurrence of lone-wolf terrorism in Indonesia has been insignificant, the proliferation of terrorist ideology supported by information technology needs to be anticipated because it can lead to the growth of both terrorist groups and individual terrorists who will challenge Indonesian security. In addition to this complex development, Indonesia's geopolitical conditions also foster the possibility of increasing terrorist growth: the large (uneducated) Moslem population, the dispersal of territory across islands, and the geographical position adjacent to a number of countries, such as Thailand and the Philippines, which allegedly bolster the growth of radical groups (Cox et al. 2009; John 2016).

Although these geopolitical conditions threaten Indonesia's national security, they can also provide opportunities to develop potential geostrategic defense and

security collaborations to reduce terrorism, especially through regional cooperation with the ASEAN and other Asia-Pacific countries such as Australia. The Government of Indonesia has also legislated to prevent and combat terrorism, such as the Anti-Terrorism Act and the National Counter-Terrorism Agency or Badan Nasional Penanggulangan Terorisme/BNPT (Idris and Taufiqurrohman 2015). However, in practice, these activities generally tend to be more offensive than defensive. For example, the law allows military operations to be conducted by Indonesia's army and police (TNI/Polri), especially in certain districts that are prone to be infiltrated by terrorist groups, including international borders, urban, and rural areas. Sometimes this includes arresting suspects arbitrarily and denying their right to speak (Maruto 2014). On the other hand, less physically coercive efforts to increase the awareness and vigilance of the Indonesian citizenry, particularly Moslems, have been undertaken more intensively. Various other mechanisms, such as education to raise public awareness, also serve as early prevention in halting terrorist ideology (Idris and Taufiqurrohman 2015; Manullang 2005). These mechanisms include training and educational seminars targeting secondary schools, mainly traditional Islamic boarding schools (*pesantren*), which are often accused of developing extreme Islamic thought (although the extent to which this is accurate is another question entirely).

Those offensive and preventive approaches undertaken by government agencies in anticipating terror certainly need to be appreciated. However, many large attacks have taken place in urban areas, and the Indonesian Government should prioritize protective and defensive anti-terror strategies to minimize physical destruction and harm to innocent victims.

3.5 Experiences of Terror in Jakarta: Examining Public Perceptions

Jakarta is the capital and largest city in Indonesia. With a population of 10.1 million people in 2015[1] (Central Bureau of Statistics 2016), security has become a major challenge for Jakarta's metropolitan government, alongside many other socioeconomic problems such as crime, poverty, and equal employment opportunities. The city has been the target of various terrorist attacks in recent years, especially after 9/11 (Table 3.1).

Savitch (2008) nominated a cluster of megacities, based on their high-profile characteristics as prime targets for terrorist attacks; these include Jakarta, Istanbul, Rio de Janeiro, and Shanghai. In Jakarta, several terrorist incidents in business districts have targeted locations that include symbols of the Western lifestyle, such as Western-brand restaurant chains, upscale malls, and places where foreigners are concentrated, such as embassies and international five-star hotels (see Table 3.1). Meanwhile, with increasing police anti-terrorist operations have foiled a number of bomb terror plots.

[1]Based on projections of national population census results in 2010 with a growth population rate 1.02%.

Table 3.1 Terror attacks in Jakarta, 2000–2015

Date	Location	Casualties
01-14-2015	Sarinah shopping center	8 people killed, 26 injured
07-11-2014	Office of Jaringan Survei Indonesia (NGO)	
08-06-2013	St. Fransiskus Catholic School	
08-03-2013	Buddha Center Jakarta	1 person injured
04-22-2011	Catholic Church	
03-18-2011	Residential area in Cibubur	
07-17-2009	Ritz-Carlton Hotel	4 people killed
07-17-2009	JW Marriot Hotel	5 people killed
01-20-2009	Egyptian Embassy	
06-02-2008	North Jakarta Port	
11-11-2006	Fast food restaurant	
09-09-2004	Australian Embassy	10 people killed, 182 injured
07-26-2004	Office of General Election Commission	
08-05-2003	JW and Marriot Hotel	15 people killed, 149 injured
04-27-2003	KFC Soekarno-Hatta International Airport	10 people injured
04-24-2003	UN office	2 people injured
02-03-2003	Police headquarters, Jakarta	1 person injured
09-23-2002	United States Embassy	1 person killed
08-01-2001	Plaza Atrium Senen shopping center	6 people injured
12-24-2000	Several Churches (simultaneously)	5 people killed, 25 injured
09-13-2000	Jakarta Stock Exchange	15 people killed, 34 injured
08-01-2000	Philippines Embassy	2 people killed

Source Compiled by the authors

Such targets in 2016 included the central building of People's Legislative Assembly (Dewan Perwakilan Rakyat/DPR), the police headquarters, and the presidential palace (Movanita 2016). These terror threats certainly need to be made a top priority by the government of Jakarta (Fig. 3.3).

Many Western studies have shown that terror incidents inflict a sense of insecurity and fear, especially for foreigners and certain community groups which actively work and settle in high-risk locations (Fischhoff et al. 2003; Nacos 2006; Woods et al. 2008). This state of fear is also experienced by the people of Jakarta: Fitri et al. (2016) examined public perceptions of terrorist actions in two main business districts

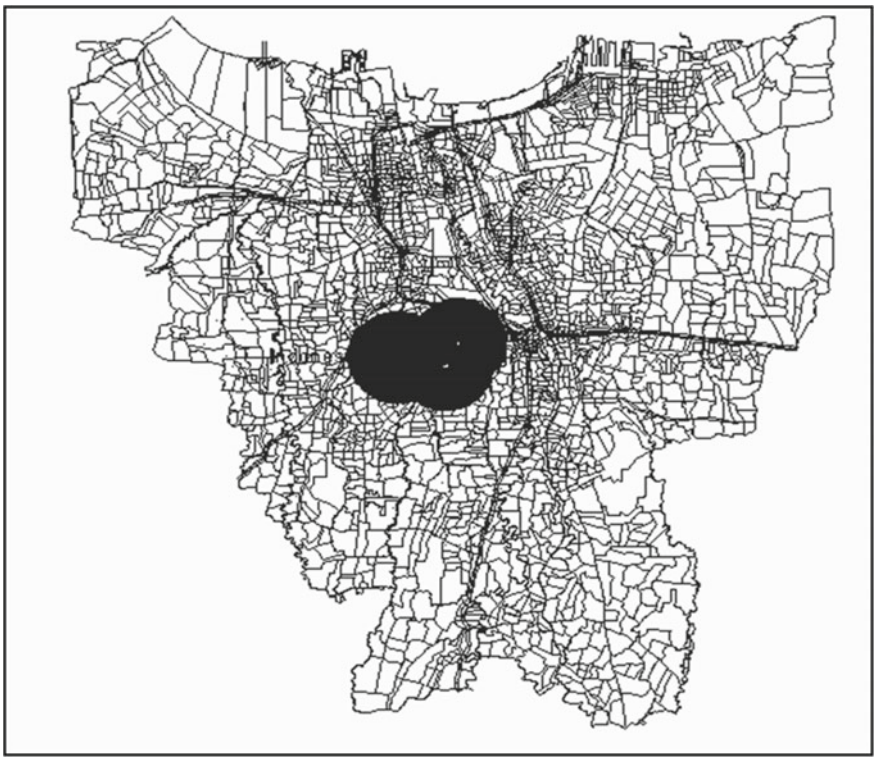

Fig. 3.3 Map of Jakarta and terror target area. *Source* The authors, using GIS to map various terror incidents in Jakarta since 2000. Dark area in the map shows location with the most terror attacks

in Jakarta (Kuningan and Sudirman[2]), and found that members of the public generally had a high level of concern about the occurrence of terror events. The highest level of concern was found in two groups: those with postgraduate qualifications, and those who had directly experienced a terrorist attack. In both cases, the anxiety probably stemmed from better knowledge about terrorism, through a higher level of education (for the first group) or personal experience (for the second).

However, Fitri et al. (2016) derived some unexpected findings from in-depth interviews with respondents. First, while most respondents were worried about impending terror attacks, they had a greater fear of crime more generally. *Prima facie*, this is quite understandable, since the crime rate in Jakarta is higher than the incidence of terror. A second unexpected finding was that respondents believed they had a lower possibility of experiencing a terror attack. This result is similar to studies conducted

[2]The sampling of respondents is limited to a maximum radius of 2 km from the center point on the two business areas, assuming that the respondents in these areas had higher awareness toward terrorism since they worked in a location with higher risk degree as terror target. The central points used were the previous terror incident target in the business area, i.e., the Australian Embassy (2004), JW Marriot and Ritz-Carlton Hotel (2003 and 2009) and the Jakarta Stock Exchange (2000).

in Australia (Stevens et al. 2009) and Canada (Lemyre et al. 2006), where these findings are understandable because of the infrequent nature of terrorist attacks in those two countries. However, the situation in Indonesia is quite different, since Indonesia has suffered several major terror attacks (see Table 3.1). Analysis of the interviews also revealed that this perception was shaped by respondents' belief that terrorists deliberately targeted foreigners. In this regard the respondents' beliefs were unfounded; the main targets of terror attacks in Jakarta were foreigners, but previous attacks also injured random victims. Such rationalization could be a result of anxiety, since anxiety can disrupt cognitive function (Huddy et al. 2005), which can manifest, for example, in incorrectly judging future risks. Contradictory results between actual risks and the belief in terror risks suggested that there was ambiguity in respondents' sense of security, and assessing the risk of terror was accompanied by both vagueness and inaccuracy (Fitri et al. 2016).

3.6 Promoting a Safer City Through Defensive Urban Design: Lessons Learned and Current Challenges for Jakarta

What can be done by the Jakarta Government to tackle terrorism and protect the public? Answering this question is not easy. However, planning and urban design that incorporates a defensive approach can provide some solutions. This approach promotes security because it can be implemented directly to any physical area that might be a high-profile terrorist target. Knowing that terrorists will always target locations with favorable physical conditions, policy-makers can take steps to minimize the risk of terrorist incidents. Thus, the resilience of physical space has to become a key factor in preventing terrorism and minimizing the death, injury, and destruction that can accrue from any one terrorist action. This approach certainly cannot totally prevent terrorism; rather, it needs to be seen as a part of an integrated collection of urban security strategies within general policy to build awareness of terrorist attacks that can occur at any time. This awareness ought not to create excessive concern, but should lead to appropriate anticipative and preventive efforts.

A number of Western countries have integrated principles of defensive urban planning and design into anti-terrorism policy, such as the UK with its CONTEST policy (Coaffee et al. 2008) and the United States with the guidance of site planning issued by the Federal Emergency Management Agency (FEMA 2007). On a small scale, this policy implements defensive urban design strategies in two main stages: risk assessment of high-profile locations in urban areas, and establishing appropriate physical intervention strategies. This physical intervention comprises appropriate design and security features that are adjusted to spatial characteristics and public space users.

Unfortunately, until now the Jakarta Government has not included such defensive urban planning and design in its security policies. This is not surprising, given that

defensive planning and design are rarely introduced in urban security practices in Indonesia. Incorporating this approach as an element to urban anti-terrorism strategies will be complicated because it is not known at the local or national policy levels. There is no regulatory basis for this approach in Indonesia's various laws and regulations related to urban planning and security, such as the Act of Terrorism Prevention (UU No. 15/2003), the Act of Disaster Management (UU No. 24/2007), the Act of Building (UU No. 28/2002), and the Act of Spatial Management (UU No. 26/27). Security practices based on environmental design are generally organized separately by private security agencies in semi-public spaces, whereas to ensure security for all in response to terror threats it is essential to assign security standards in the public space. This is certainly a challenge for the Government of Jakarta.

Without prior experience of implementing defensive urban planning and design policies, the Government of Jakarta ideally can learn from other cities and evaluate the best strategy to be adapted in Jakarta. However, this is not straightforward. Previous studies conducted in Western countries such as the United States, the UK, and Australia have provided little information about the implementation of defensive urban design policy in public spaces (Anderson 2013; Coaffee 2009a, b; Graham 2004; Marcuse 2002, 2004, 2006). Most studies tend to emphasize the negative impacts of security features, such as promoting excessive measures of target hardening that facilitate urban fortification and militarization (Coaffee 2004; Coaffee and Wood 2006). As a result, public spaces become restricted and inaccessible to the public, thereby shrinking the amount of available public space and increasing the landscape of fear. Even though the primary objective of this approach is to provide a sense of security, it is judged as a mechanism of imprisoning society against the right of people to access public space (Coaffee 2009b; Marcuse 2006; Savitch 2008). To avoid this situation, the government should be cautious in applying defensive urban planning and design, by garnering public acceptance of the various design strategies and choosing appropriate security features for public spaces.

Along these lines, Fitri et al. (2016) conducted a pilot study to determine public perceptions toward certain security features in public spaces. The sample of four potential defensive urban design strategies included spatial restriction (*access-territory strategy*); surveillance strategies (including the use technological surveillance); the dispersion of mass concentration through the division of spatial function (*animated strategy*); and concealing features of the environment to prevent the preparation of terror attacks (*concealment strategy*). The results of this study can be a reference for government and security forces in Jakarta to apply a defensive urban design approach.

Fitri et al. (2016) found that surveillance was the most favored strategy to enhance a sense of security in public space, and that unrealistic expectations have been placed on the use of surveillance as a defensive design strategy. However, the study identified other important aspects of this strategy.

First, most interviewees cited CCTV as the main method of surveillance that can provide a sense of security against terrorist attacks. The surveillance strategy as understood by the respondents was not the spatial approach promoted by Jacobs (1961) in the form of "eyes on the street." Nor did it entail the juxtaposition of

buildings (placing in close proximity) in the theory of defensible spaces; nor did it conform to "natural" surveillance in crime prevention through an environmental design approach, which generally becomes the basis for defensive urban design. The respondents merely preferred technological surveillance, such as the use of CCTV. This finding is certainly in contrast to criticisms of widespread technological surveillance in Western countries, on the basis that it violates individual privacy.

Grosskopf (2006) also found a preference in Florida for surveillance strategies in providing a sense of security from terrorist threats. In this case surveillance was preferred because of the passive characteristic of this tool—in essence, its presence does not interrupt people. In contrast, Fitri et al. (2016) noted that respondents believed that CCTV answered the need for security because it was perceived as having an active role. This active nature was based on the ability of CCTV to provide accurate information of incidents that can be directly followed up by security personnel. Thus, surveillance is complementary to formal supervision.

Second, although surveillance is favored as the main urban defensive design strategy to create a general feeling of security in the face of terror, apparently it cannot replace the organizational approach to establishing a sense of security. Interviewees were asked to name another important non-spatial factor, beyond the four major strategies of urban defensive design. Respondents unanimously nominated the presence of security personnel. This choice can be explained by two approaches: personal control and a safety culture. From the concept of personal control, any terror incident is treated as an extreme and unpredictable event that makes it difficult to measure rational risk, thereby reducing personal control and leading to a sense of powerlessness (Migliorini et al. 2008). This powerlessness encourages individuals to seek protection from something that has power, either in the form of information, expertise, regulation, organization, or technology. Security officers are considered powerful because of their ability and capability to respond quickly in uncertain situations when terrorism occurs. Security officers also have the resources needed by the community to provide better protection—either the knowledge or the weapons to overcome the terrorists. Terrorist attacks in Sarinah Thamrin, Jakarta (2016) perhaps provide the best example of this explanation. At that time, the people gathered to approach the scene of terror and watched the crossfire between police and terrorists at close range, arguably because they perceived that the presence of security forces would provide the necessary protection.

Meanwhile, from the concept of a safety culture, dependency on security personnel might be ascribed to the unique Indonesian perception shaped by historical experiences. Security forces have served mainly as a stabilizer to maintain order, particularly during the New Order era of the repressive Suharto regime, where the military and security forces maintained stability. This historical experience created a certain "security culture" that has led citizens to depend highly on those formal forces to maintain security.

Third, the choice of technological surveillance in the future will have an impact upon the vibrancy of public life, because it can substitute social and nonformal supervision. The social element of a space, represented by the model of "eyes on the street" by Jacobs (1961), is slowly eroded, as social control functions are taken

over by the use of technology. This situation is a drawback because it can decrease social empathy and attention to environmental conditions, whereas one of the most important aspects of terror prevention should come from society's awareness and voluntary monitoring of the environment.

In the context of urban life, the active role to control the environment is considered part of sociocultural practices that appear because of social ties within public space, arising as a consequence of the public realm. Although the essence of public realm has continuously declined (Davis 1990; Mitchell 2003), the presence of these technologies could accelerate the degradation of social relations (Fitri et al. 2016; Lyon 2003). Moreover, in the context of public spaces, communal ties to space are not as strong as social bonding within the neighborhood or residential areas.

Thus, the presence of CCTV as the replacement of "eyes on the street" encourages declining social ties between space and the individuals within it. This indicates that surveillance has created a new function of social control in public space. In the context of terrorism, this substitution becomes very relevant since the risk of monitoring terrorist behavior cannot be predicted.

From the findings of Fitri et al. (2016) and other countries' experience of defensive urban planning and design in various countries, the Government of Jakarta can take several steps to implement the proper defensive urban design strategies in public space. First, the government should set an appropriate layer of security zones in certain spaces and provide sufficient information to raise public awareness about terror risk. Second, the government can adjust the design and security features to the character of particular spaces and its users. The goal should be to create a harmonious sphere of security features in a defensive design within an existing physical environment.

The third step is to integrate organizational and surveillance strategies to obtain a proper balance between supervision from human, technological, and physical elements, using both security agencies and individuals. It is important to discourage people's dependency on formal security personnel and surveillance technologies, as this can weaken social monitoring in urban space. Therefore, people should be educated about the importance of vigilance against terrorist threats, involving society as an active supervising agent in conjunction with formal officials. For example, the power of social control in residential areas actually rests with the official community group Rukun Tetangga-Rukun Warga (RT-RW) through registration and collection of data about community members and supervision of foreigners and citizens. However, in practice, this system has been ineffective because it involves only the formal RT/RW officials and not the whole community (Reza 2016). A satisfactory solution would be to strengthen the supervisory role of the RT/RW and improve the effectiveness of local community forums. Meanwhile, the main role of supervision of broader public spaces by formal security forces still needs to be supported by the community.

Finally, the government can take many steps to anticipate terror through defensive urban planning and design. But adopting this approach requires policy tools to support its implementation. The government already has sufficient benchmarks for such policies from the initial study by Fitri et al. (2016) and other countries' experiences of defensive urban planning and design. The Jakarta Government needs to

open itself to opportunities of executing defensive urban planning and design strategies to promote a city safe from terror threats. The government's direct intervention in physical elements of the city should reduce the opportunity of terror occurrences by eliminating the conditions conducive to terrorist attacks.

3.7 Conclusion

In this age of terror, the need for security in urban spaces has become clear. The strategy of providing urban environments free from the possibility of becoming terrorist targets has to involve the physical and spatial arrangement of security features in public spaces. This strategy has long been a part of defensive urban planning to secure a city.

Although defensive urban planning is currently popular as a soft strategy to prevent and mitigate urban terror attacks in Western society, many cities in Southeast Asia have no experience of implementing this idea– including the city of Jakarta, Indonesia. As the city is the main target of terrorist attacks in Indonesia, the Government of Jakarta needs to immediately adopt defensive urban planning to increase security. Such measures include assessing the appropriate strategy, increasing public awareness of defensive planning and design roles to ensure safety, and also evaluating the strategy's implementation to cope with any drawbacks, especially criticism about the violation of freedom in public spaces.

This latest study examining the public perception of urban terrorism and acceptance toward defensive urban planning and design strategy in Jakarta has shown that urban terrorism is perceived as less threatening than crime, and that most people think surveillance tools are the best strategy to increase a feeling of security in a time of terror. The government should consider these findings when seeking the best approach to implement defensive urban planning. If the government can integrate such a strategy into a comprehensive anti-terrorism policy in Jakarta, the city could serve as a model for other cities in Southeast Asia.

References

Anderson, R. L. (2013). *The effect of urban fortification on public space* (Doctoral Dissertation). Milwaukee: University of Wisconsin Milwaukee.

Atkins, P. J. (1993). How the West End was won: The struggle to remove street barriers in Victorian London. *Journal of Historical Geography, 19*(3), 265–277.

Banlaoi, R. C. (2007). Radical Muslim terrorism in the Philippines. In A. T. H. Tan (Ed.), *A handbook of terrorism and insurgency in Southeast Asia* (pp. 194–224). Cheltenham: Edward Elgar.

Banlaoi, R. C. (2009). *Counter-terrorism in Southeast Asia: How effective are they?*. Manila: Yuchengco Center.

Bannister, J., & Fyfe, N. (2001). Introduction: Fear and the city. *Urban Studies, 38*(5–6), 807–813.

Beall, J. (2006). Cities, terrorism and development. *Journal of International Development, 18*(1), 105–120.
Branscomb, L. M. (2006). Sustainable cities: Safety and security. *Technology in Society, 28,* 225–234.
Bugliarello, G. (2003). Urban security in perspective. *Technology in Society, 25,* 499–507.
Burton, A. (1975). *Urban terrorism: Theory, practice, response*. London: Cooper.
Carmona, M., Heath, T., Oc, T., & Tiesdell, S. (2003). *Public places urban space: The dimension of urban design*. Oxford: Architectural Press.
Carol, P. J., Wichman, A. L., & Arkin, R. M. (2006). Security in the aftermath of 9/11. *Basic and Applied Social Psychology, 28*(4), 289–290.
Central Bureau of Statistics. (2016). *Jakarta dalam angka*. Jakarta: BPS.
Clark, C. L., & Munasinghe, M. (1995). Economic aspects of disaster and sustainable development: An introduction. In C. L. Clark & M. Munasinghe (Eds.), *Disaster prevention for sustainable development: Economic and policy issues* (pp. 1–10). Washington, DC: The World Bank.
Clarke, R. V., & Newman, G. R. (2006). *Outsmarting the terrorist*. Westport: Praeger Security International.
Coaffee, J. (2003). *Terrorism, risk, and the city: The making of a contemporary urban landscape*. Aldershot: Ashgate.
Coaffee, J. (2004). Recasting the "ring of steel": Designing out terrorism in the city of London. In S. Graham (Ed.), *Cities, war and terrorism: Towards an urban geopolitics* (pp. 276–296). Oxford: Blackwell.
Coaffee, J. (2009a). Protecting the urban: The dangers of planning for terrorism. *Theory, Culture & Society, 26*(7–8), 343–355.
Coaffee, J. (2009b). *Terrorism, risk and the global city: Toward urban resilience*. Surrey: Ashgate.
Coaffee, J., Moore, C., Fletcher, D., & Bosher, L. (2008). Resilient design for community safety and terror-resistant city. *Municipal Engineer, 161*(2), 103–110.
Coaffee, J., & Wood, D. M. (2006). Security is coming home: Rethinking scale and constructing resilience in the global urban response to terrorist risk. *International Relations, 20*(4), 503–517.
Coaffee, J., Wood, D. M., & Rogers, P. (2009). *The everyday resilience of the city: How cities respond to terrorism and disaster*. Hampshire: Palgrave Macmillan.
Cox, D. G., Falconer, J., & Stackhouse, B. (2009). *Terrorism, instability, and democracy in Asia and Africa*. Lebanon, NH: Northeastern University Press.
Damarjati, D. (2017, April 10). Para teroris ditembak mati, BNPT: Kalau nggak anggota yang mati. https://news.detik.com/berita/d-3470515/para-teroris-ditembak-mati-bnpt-kalau-nggak-anggota-yang-mati. Accessed September 15, 2017.
Davis, M. (1990). *City of quartz: Excavating the future in Los Angeles*. New York: Verso.
Day, K., Anderson, C., Powe, M., McMillan, T., & Winn, D. (2007). Remaking minnie street: The impacts of urban revitalization on crime and pedestrian safety. *Journal of Planning Education and Research, 26,* 315–331.
Dishman, C. (2005). The leaderless nexus: When crime and terror converge. *Studies in Conflict and Terrorism, 28,* 237–252.
Dudley, M. Q. (2001). Sprawl as strategy: City planners face the bomb. *Journal of Planning Education and Research, 21,* 52–63.
Fealy, G. (2007). Militant Java-based Islamist movement. In A. T. H. Tan (Ed.), *A handbook of terrorism and insurgency in Southeast Asia* (pp. 63–75). Cheltenham: Edward Elgar.
FEMA. (2007). Federal Emergency Management Agency. *Risk management series: Site and urban design for security*. https://www.fema.gov/media-library/assets/documents/12746. Accessed November 2, 2013.
Fischhoff, B., Gonzales, R. M., Small, D. A., & Lerner, J. S. (2003). Judged terror risk and proximity to the World Trade Center. *The Journal of Risk and Uncertainty, 6*(2/3), 137–151.
Fitri, H., Akbar, R., Zulkaidi, D., & Argo, T. A. (2016). *Desain kontraterorisme dan persepsi keamanan dalam ruang publik* (Doctoral Dissertation). Bandung: Institut Teknologi Bandung.

Franks, J. (2009). Rethinking the root of terrorism: Beyond orthodox terrorism theory—A critical research agenda. *Global Society, 23*(2), 153–176.
Gerges, F. A. (2011). *The rise and fall of Al-Qaeda*. New York: Oxford University Press.
Glaeser, E. L., & Shapiro, J. M. (2002). Cities and warfare: The impact of terrorism on urban form. *Journal of Urban Economics, 51*(2), 205–224.
Godschalk, D. R. (2003). Urban hazard mitigation: Creating resilience city. *Natural Hazards Review, 4*(3), 136–143.
Gold, R. (1970). Urban violence and contemporary defensive cities. *Journal of the American Institute of Planner, 36*(3), 146–159.
Graham, S. (2004). *Cities, war and terrorism: Towards an urban geopolitics*. Oxford: Blackwell.
Grosskopf, K. R. (2006). Evaluating the societal response to antiterrorism measures. *Journal of Homeland Security and Emergency, 3*(2), 1–9.
Haldon, J. (1999). *Warfare, state and society in the Byzantine world 565–1204*. Oxon: Routledge.
Hardiman, B. (2003). Terorisme: Paradigma dan definisi. In F. B. Hardiman, R. Marpaung, & Al Araf (Eds.), *Terorisme: Definisi, aksi, dan regulasi* (pp. 3–9). Jakarta: Imparsial.
Hopper, L. J., & Droge, M. J. (2005). *Security and site design: A landscape architectural approach to analysis, assessment, and design implementation*. New Jersey: Wiley.
Huddy, L., Feldman, S., Taber, C., & Lahav, G. (2005). Threat, anxiety, and support of antiterrorism policies. *American Journal of Political Science, 49*(3), 593–608.
Idris, I., & Taufiqurrohman, M. (2015). Current state of Indonesia's deradicalisation and rehabilitation program. In R. Gunaratna & M. Ali (Eds.), *Terrorist rehabilitation: A new frontier in counter-terrorism* (pp. 71–102). London: Imperial College Press.
Institute for Economics & Peace. (n.d.). Global terrorism index 2017: Measuring and understanding the impact of terrorism. http://economicsandpeace.org/reports/. Accessed November 25, 2017.
Jacobs, J. (1961). *The death and life of American great cities*. New York: Random House.
Jeffery, C. R. (1971). *Crime prevention through environmental design*. Beverly Hills: Sage.
John, T. (2016, January 15). Indonesia's long battle with Islamic extremism could be about to get tougher. http://time.com/4181557/jakarta-terrorist-attacks-indonesia-isis/. Accessed March 23, 2016.
Kaiser, E. J., & Godschalk, R. (1995). Twentieth century land use planning: A Stalwart family tree. *Journal of the American Planning Association, 61*(3), 365–385.
Karnavian, M. T. (2015). *Explaining Islamist insurgencies: The case of al-Jamaah al-Islamiyah and the radicalisation of the Poso conflict, 2000–2007*. London: Imperial College Press.
Kunarto. (1999). *Merenungi kiprah Polri terhadap kejahatan menonjol: Bom-tawur-senjata api*. Jakarta: Cipta Manunggal.
Kushner, H. W. (2003). *Encyclopedia of terrorism*. Thousand Oaks: Sage.
Lemyre, L., Turner, M. C., Lee, J. E. C., & Krewski, D. (2006). Public perception of terrorism threats and related information sources in Canada: Implications for the management of terrorism risks. *Journal of Risk Research, 9*(7), 755–774.
Light, J. S. (2004). Urban planning and defense planning, past and future. *Journal of the American Planning Association, 70*(4), 399–410.
Low, S. M. (1997). Urban fear: Building the fortress city. *City & Society, 9*(1), 53–71.
Lyon, D. (2003). Technology vs 'terrorism': Circuits of city surveillance since September 11th. *International Journal of Urban and Regional Research, 27*(3), 666–678.
Makinda, S. M. (2003). Global governance and terrorism. *Global Change, Peace & Security, 15*(1), 43–58.
Manullang, A. C. (2005). *Terorisme dan perang intelijen: Behauptung ohne beweis (dugaan tanpa bukti)*. Jakarta: Manna Zaitun.
Marcuse, P. (2002). Urban form and globalization after September 11th: The view from New York. *International Journal of Urban and Regional Research, 26*(3), 596–606.
Marcuse, P. (2004). The war of "terrorism" and life in cities after September 11, 2001. In S. Graham (Ed.), *Cities, war and terrorism: Towards an urban geopolitics* (pp. 263–275). Oxford: Blackwell.

Marcuse, P. (2006). Security or safety in cities? The threat of terrorism after 9/11. *International Journal of Urban and Regional Research, 30*(4), 919–929.
Marshak, J., Teller, E., & Klein, L. R. (1946). Dispersal of cities and industries. *Bulletin of Atomic Scientists, 1*(9), 13.
Maruto, R. (2014, December 16). Komnas HAM kecam penangkapan semena-mena terduga teroris. https://sulteng.antaranews.com/berita/17119/komnas-ham-kecam-penangkapan-semena-mena-terduga-teroris. Accessed February 13, 2015.
Maslow, A. H. (1968). *Toward a psychology of well-being*. New York: Van Nostrand.
Migliorini, L., Rania, N., Cardinali, P., & Manetti, M. (2008). Sense of safety and the urban environment: A study of preadolescents and adolescents. *Medio Ambiente y Comportamiento Humano, 9*(1–2), 69–89.
Mitchell, D. (2003). *The right to the city: Social justice and the fight for public space*. New York: The Guilford Press.
Morris, A. E. J. (1994). *History of urban form before the industrial revolution*. Essex: Pearson Education.
Movanita, A. N. K. (2016, November 25). Teroris Majalengka incar gedung DPR, Mabes Polri, hingga Mako Brimob. http://nasional.kompas.com/read/2016/11/25/16244771/teroris.di.majalengka.incar.gedung.dpr.mabes.polri.hingga.mako.brimob. Accessed April 20, 2017.
Nacos, B. L. (2006). *Terrorism and counter-terrorism: Understanding threats and response in the post-9/11 world*. New York: Pearson Education.
Newman, O. (1972). *Defensible space: People and design in the violent city*. London: Architectural Press.
Nicolaides, B. M., & Wiese, A. (2006). *The suburb reader*. Oxon: Routledge.
Oc, T., & Tiesdell, S. (1997). *Safer city centres: Reviving the public realm*. London: Paul Chapman Publishing.
Oc, T., & Tiesdell, S. (1999). The fortress, the panoptic, the regulatory and the animated: Planning and urban design approaches to safer city centres. *Landscape Research, 24*(3), 265–286.
Pelling, M. (2003). *The vulnerability of cities: Natural disasters and social resilience*. London: Earthscan.
Poland, J. M. (2005). *Understanding terrorism: Groups, strategies, and response*. New Jersey: Pearson.
Pongsudhirak, T. (2007). The Malay-Muslim insurgency in Southern Thailand. In A. T. H. Tan (Ed.), *A handbook of terrorism and insurgency in Southeast Asia* (pp. 248–265). Cheltenham: Edward Elgar.
Post, J. M. (2005). The socio-cultural underpinnings of terrorist psychology. In T. Bjorgo (Ed.), *Root causes of terrorism: Myths, reality and ways forward* (pp. 54–69). Oxon: Routledge.
Preiser, W. F. E. (2007). Integrating the seven principles of universal design into planning practice. In J. L. Nasar & J. Evans-Cowley (Eds.), *Universal design and visitability from accessibility to zoning* (pp. 1–30). Columbus: The John Glenn School of Public Affairs.
Ramakrishna, K. (2005). "The Southeast Asian approach" to counter-terrorism: Learning from Indonesia and Malaysia. *Journal of Conflict Studies, 25*(1), 27–47.
Reza, A. (2016, January 19). Antisipasi terorisme, RT-RW diminta peka lingkungan. Harian Nasional. http://www.harnas.co/2016/01/19/antisipasi-terorisme-rt-rw-diminta-peka-lingkungan. Accessed December 15, 2016.
Rodell, P. (2007). Separatist insurgency in the Southern Philippines. In A. T. H. Tan (Ed.), *A handbook of terrorism and insurgency in Southeast Asia* (pp. 225–247). Cheltenham: Edward Elgar.
Ruland, J. (2005). The nature of Southeast Asian security challenges. *Security Dialogue, 36*(4), 545–563.
Sassen, S. (2010). When the city itself becomes a technology of war. *Theory, Culture & Society, 27*(6), 33–50.
Satoh, S. (1997). The morphological transformation of Japanese castle-town cities. *Urban Morphology, 1,* 11–18.

Savitch, H. V. (2005). An anatomy of urban terror: Lessons from Jerusalem and elsewhere. *Urban Studies, 42*(3), 361–395.
Savitch, H. V. (2008). *Cities in a time of terror*. New York: M.E. Sharpe Inc.
Schneider, R., & Kitchen, T. (2007). *Crime prevention and the built environment*. Oxon: Routledge.
Smith, B. L., Cothren, J., Roberts, P., Damphousse, K. R. (2008). Geospatial analysis of terrorist activities: The identification of spatial and temporal patterns of preparatory behavior. Research report. National Criminal Justice Reference Service. www.ncjrs.gov/pdffiles1/nij/…/222909.pdf. Accessed December 17, 2012.
START. (2017). National Consortium for the Study of Terrorism and Responses to Terrorism Global Terrorism Database [Terror Attacks in Indonesia Over Time]. https://www.start.umd.edu/gtd. Accessed 25 November 25. 2017.
Stevens, G., Taylor, M., Barr, M., Jorm, L., Giffin, M., Ferguson, R., et al. (2009). Public perceptions of the threat of terrorist attack in Australia and anticipated compliance behaviours. *Australian and New Zealand Journal of Public Health, 33*(4), 339–346.
Swanstrom, T. (2002). Are fear and urbanism at war? *Urban Affairs Review, 38*(1), 135–140.
Tan, A. T. H. (2007). Terrorism and insurgency in Southeast Asia. In A. T. H. Tan (Ed.), *A handbook of terrorism and insurgency in Southeast Asia* (pp. 3–25). Cheltenham: Edward Elgar.
Taylor, N. (1998). *Urban planning theory since 1945*. London: Sage.
Tito, F. (2016, April 14). Cara Densus 88 terhadap Siyono akan menimbulkan aksi radikal. http://m.beritajatim.com/hukum_kriminal/264308/cara_densus_88_terhadap_siyono_akan_menimbulkan_aksi_radikal.html. Accessed August 8, 2016.
Tobin, K. (2002). The reduction of urban vulnerability: Revisiting 1950s American suburbanization as civil defense. *Cold War History, 2*(2), 1–32.
Toy, S. (1984). *Castles: Their construction and history*. New York: Dover Publication Inc.
UN-Habitat. (2007). *Global report on human settlement 2007: Enhancing urban safety and security*. London: Earthscan.
Vanderschueren, F. (1996). From violence to justice and security in cities. *Environment and Urbanization, 8*(1), 93–112.
Vermonte, P. J. (2003). Menyoal globalisasi dan terorisme. In F. B. Hardiman, R. Marpaung, & Al Araf (Eds.), *Terorisme: Definisi, aksi, dan regulasi* (pp. 26–35). Jakarta: Imparsial.
Wahjuwibowo, I. S. (2015). *Terorisme dalam pemberitaan media*. Yogyakarta: Deepublish.
Wekerle, G. R., & Whitzman, C. (1995). *Safe cities: Guidelines for planning, design, and management*. New York: Von Nostrand Reinhold.
West, B. (2008). Collective memory and crisis: The 2002 Bali bombing, national heroic archetypes and the counter-narrative of cosmopolitan nationalism. *Journal of Sociology, 44*(4), 337–353.
White, J. R. (2012). *Terrorism and homeland security*. Belmont: Wadsworth.
Woods, J., Eyck, Toby A. T., Kaplowitz, S. A., & Shlapentokh, V. (2008). Terrorism risk perceptions and proximity to primary terrorist targets: How close is too close? *Human Ecology Review, 23*(1), 153–176.
Ziegler, E. H. (2005). American cities and sustainable development in the age of global terrorism: Some thoughts on fortress America and the potential for defensive dispersal II. *William & Mary Environmental Law and Policy Review, 30*(1), 95–151.

Chapter 4
Bordering Practices in Global Sydney: Becoming a City-Region or a "Metropolis of Three Cities"?

Kane Pham

Abstract As cities grow they become city-regions. Recent strategies for the construction of the Sydney Global City Region have suggested a westward geographical shift of its center, with the current city becoming an eastern node in this reconstruction of metropolitan Sydney. This chapter utilizes recent perspectives from the field of Border Studies that scrutinize the liminal state of borders, offering alternative approaches to understanding the formation of subregions, their relationships, and implications for a greater "Sydney Global City Region." As the spatial boundary of the city-region grows, its interior relations are repositioned as new borders are formed. Sydney is facing restructuring to become a "metropolis of three cities." This introduces both opportunities and complexities in the governing and strategy toward the future shape and importance of the existing "Sydney Global City." Formation of these city-regions also makes visible the latent interjurisdictional politics that frame the planning and governance of these extended urban environments. Through an analysis of successive strategic planning documents from 2005 to 2017, this chapter first finds that the growth of cities requires new theoretical perspectives to "see" the changing dynamics within the city-region. Second, the chapter examines the bordering practices between subregions that guide the strategic shift to reimagine greater Sydney as a metropolis of three cities. These growth strategies displace the focus on community development at a local level, further prioritizing economically driven developments that are manufactured through bordering practices redefining the city-region.

Keywords Bordering · Greater Sydney Commission
Sydney Global City · Sydney Global City Region

K. Pham (✉)
Institute for Public Policy and Governance, University of Technology Sydney, PO Box 123, Broadway, NSW 2007, Australia
e-mail: Kane.Pham@uts.edu.au

B. Grant et al. (eds.), *Metropolitan Governance in Asia and the Pacific Rim*,
https://doi.org/10.1007/978-981-13-0206-0_4

4.1 Introduction

Global Cities are no longer *the* comparative unit of global competition and have given way to the emergence of competitive Global City Regions. Sydney too has been drawn into these rescaling processes, with intercity dynamics carefully crafted over multiple plans and strategies (McGuirk 2004, 2005). This chapter analyzes recent strategic planning documents delivered by the New South Wales (NSW) Government, in particular, the Greater Sydney Commission (GSC), a recently engendered statutory corporation of the state government. The discussion interrogates the competitive restructuring of the Sydney Global City Region, focusing upon two subregions that are core to the geopolitical repositioning of the city-region. Their modification in late 2017 to the current configuration suggests trajectories of their roles in future economic and political discourse. Through the lens of performative bordering processes, this chapter contributes to understanding the liminal state of borders shaping city-regional development and the inherent political bias and strategic selectivity of their construction through the course of localized development.

Attempts at centralized governance at a metropolitan level in NSW have had a history of varying success (Larcombe 1978; Baines and Miles 1981) with the City of Sydney Council party to many of these attempts (Baines and Miles 1981). Consolidation of local government has been central to these attempts, with the incremental amalgamation of councils characterizing reform processes over time, alongside perennial failures in achieving a unified metropolitan authority *and* a burgeoning of single-purpose statutory authorities (Baines and Miles 1981). The most recent project of metropolitan reform, which we can roughly date from 2011, has been fraught with controversy, with the NSW Government's attempt to elicit council amalgamations running counter to the Liberal-National state government's policy for the 2011 state elections (ILGRP 2013). Some of these amalgamations have faced sustained legal challenges, with several councils forcing the state government to withdraw from their efforts to consolidate (Grant, in Sansom 2015; Davies 2016). Despite these hotly contested state-local government battles, efforts by the state government to modify existing borders in the Sydney metropolitan region have been given new avenues in the guise of the GSC.

Placing to one side the history of city commissions in Sydney (for a concise account, see Grant et al. 2015), this chapter interrogates contemporary reform processes and is structured as follows. Section 4.2 develops theory on borders and bordering that provides a frame to read the changes occurring in the Sydney Global City Region, also borrowing the framework of Territory, Place, Scale, and Network (TPSN) proposed by Jessop et al. (2008). Section 4.3 unpacks the development of the GSC and its *A Plan for Growing Sydney* (2014), inherited from the preceding plans drafted by the state government, namely the *City of Cities* (2005) and *Metropolitan Plan for Sydney 2036* (2010). Section 4.4 evaluates the strategic and material qualities that seek to shape metropolitan governance in Sydney. The chapter concludes in Sect. 4.5, which discusses the case of the GSC through the lens of bordering, and its value in assessing the restructuring of Sydney as a "metropolis of three cities."

4.2 Theory: Bordering Territories and Regions

Discussion concerning borders and boundaries has typically been conducted at the thresholds of national territories and the conflicting production and spatialization of interjurisdictional zones (see, for example, Anderson 1983; Gellner 1983). However, since the 1990s, a growing number of scholars have analyzed the processual transitory state of liminal borders through globalization processes, that is, the sociospatial construction of territory (Agnew 1994; Burridge et al. 2017; Newman 2011; Paasi 1998; Parker and Vaughan-Williams 2009; Sassen 2013; Steele et al. 2013; Van Houtum and Van Naerssen 2002). Bordering practices define differences and separate antagonistically an "us" and a "them" (Van Houtum and Van Naerssen 2002, p. 125). Borders also demarcate jurisdictional boundaries that limit the reach of legal authorities within defined territories (Sassen 2013); they are interdisciplinary spatial relations where hybrid forces interact and interface, mediating political, social, ethnic, and economic boundaries (Newman 2011); and through their conceptualization they materialize a space to resolve the "messiness" around borderlines and boundaries (Steele et al. 2013).

As discussed by Serghei Golunov in Chap. 2 of this book, borders are zones of plurality and malleability. Continually in states of flux, they are inherently the subject of political projects and objects of contestation. Paasi (2012) suggests that "border" "has been a key category for social scientists since the 19th century, when modern state-building and nation-building processes began to intensify in Europe" (p. 2303). Kaiser (2012, p. 522) views borders as performative objects that allow one to see or study processes of bordering in the act of emergence or becoming. Nonetheless, borders are fundamentally powerful constructs marking the edge of territories, defining state space, but it is also at the edges where the fuzzy outline of territorial borders allows antagonisms to take place.

In Australia, these performative acts can be seen in the long-standing debate about what Grant and Drew (2017, pp. 82–122) label as the "realism and the romance" of what, in essence, is the political division of territory in the Australian federation. However, at the subnational level they can also be seen in urbanization processes that regularly reform boundaries at the regional and subregional levels, demarcating the edge of urban and nonurban settlements or environments, but also marking sites of strategic global importance that compete regionally as well as globally (Bunker et al. 2017; Hu 2012). These expansive conceptions of regional territories invite questions of larger strategic agglomerations of space, as seen in studies of planetary urbanization (Brenner 2014; Merrifield 2013). As these territories are prioritized and grow, the glocalizing effects of globalization act from above, restructuring institutions at the local, city, and regional levels (Swyngedouw 2004) and prioritizing global competitiveness that shifts the scale of localized development. This process of restructuring is inherently political; just as sovereignty and citizenship are contested at state borders, subregional demarcations reveal the reified political patination inherent in their determination.

At the thresholds of state borders, De Genova (2013) suggests borders are scenes of exclusion and these acts of territorial construction naturalize the transformative effects on sociospatial relations (Brenner and Elden 2009). Borders as structuring devices and their impacts on agents must be studied in tandem to understand their mutually interrelated dynamics (Brunet-Jailly 2005). As borders are objects in flux, these relational configurations must also be temporarily stabilized to see specific moments of change (Paasi and Metzger 2017), recognizing that "region formation is *one moment* in the regional transformation of social practices and social consciousness that occurs at various spatial scales and within various timespans/historical scales" (Paasi 2004, p. 540, emphasis added) while also drawing interrelationships of the social with boundaries and identity (Paasi 2008).

Understanding borders and regions as both interdisciplinary spaces and sociospatial relations frames them as polymorphic and subject to change (Burridge et al. 2017). Jessop et al. (2008) have usefully suggested a framework that understands sociospatial relationships under categories of territories, places, scales, and networks (TPSN), and finds mutuality and the relational intertwining of two or more of these dimensions providing a stage to analyze institutional thickness and problematize the concrete-complex phenomena. They recognize the usefulness of each ontological perspective but are quick to note that the privileging of an individual dimension falls into the realm of "bad abstraction," thus rendering these perspectives imprecise and even chaotic (Jessop et al. 2008, p. 391). Borrowing from their framework, *territory* sees sociospatial relations through bordering, bounding, parcelization, and enclosure; *place* through proximity, spatial embedding, and areal differentiation; *scale* through hierarchization and vertical differentiation; and *networks* through interconnectivity, interdependence, and transversal or "rhizomatic" differentiation (Jessop et al. 2008, p. 393). To draw some conceptual boundaries for this study, the ontological frame of this chapter focuses upon the dimensions of territory and scale through their couplings of multilevel government, that is, hierarchical relations of territoriality and the scalar division of political power (Jessop et al. 2008, p. 395).

Territory as a historically specific form of space (Brenner and Elden 2009) is socially produced (Lefebvre 1991 [1974]) but also legally constructed (Sassen 2013). One can understand territory as the "political counterpart to [the] notion of calculating space, and can therefore be thought of as the *extension of the state's power*" (Elden 2013, p. 322, original emphasis). The territory and territoriality of competitive city-regions have recently been subjects of growing debate, with divisions emerging concerning the conceptualization of bounded and unbounded territories (Paasi 2004, 2009). Seen within the construction of city-regions, the formation of territory is a product of sociospatial relations contingent on its historical construction and definition that structures relations of interiority and exteriority that, in turn, reify contingent forms of hegemonic politics. Paasi (2009, p. 219) suggests that territorial transformation occurs at all scales, from the local through state and global regions, also recognizing "various spatial scales in the construction of borders".

Territory therefore is inextricably bounded in understanding the relations of state and space (Sassen 2013) while also inscribed in the sociospatial relations of territoriality. This historical process, shaped by the state, draws new demarcations in the

internal reconfiguration of state territories. The deterritorialization and reterritorialization of space may affirm existing borders or mark the outline of new regions that act toward a globalizing strategy that reinforces neoliberal policies. Such a strategy can allow firms and markets to act transversally across borders exerting greater influence on and shaping the sociospatial processes that have historically been drawn by the state. The mobility of firms and mutable forms of market actors (Sassen 1991) begins to piece together new networks through a scalar-territorial reorganization that reveals the unevenness of neoliberal practices.

These politics of scale and the scalar transformation of space coincide with the fluid dynamics of bordering processes. Neoliberal globalization (Brenner et al. 2010; Leitner et al. 2007) has had a marked influence on the ideology of border ontologies, with the construction of regions and the reordering of subregions refining practices of othering that strategically prioritize developmental zones through exogenous influences and priorities. Under state rescaling practices, Brenner and Elden (2009) see "urbanization processes engender contextually specific forms of sociospatial dislocation and crisis formation, as well as corresponding strategies of political intervention designed to confront the latter" (p. 127) and that "rather than promoting 'balanced' urban and regional development … the overarching goal of urban locational policies is to position major cities and city-regions strategically within supranational circuits of capital accumulation" (p. 128). Ward and Jonas (2004) note these rescaling processes, cautioning that these practices privilege scalar selectivity, promoting certain metropolitan-regional institutional developments that reinforce hegemonic discourses of competitive city-regionalism (Ward and Jones 2004, p. 2128) and, like borders, are "highly selective and … are powerful tools of segmentation and differentiation" (Burridge et al. 2017, p. 244).

Seen together, borders and bordering, territory, and scale reveal and reinforce the unevenness of urban development strategies and the politics of competitive city-regionalism that is embedded in the direction posed by neoliberal policies. Reviewing the literature, borders are sites that materialize sociospatial difference, but are mutable and are also contingent on contextually specific sociospatial relations. Selecting the dimensions of territory and scale from the TPSN framework of Jessop et al., we also see the materialization of state power in the construction of city-regions that reify contingent forms of hegemonic politics. The ability of firms and markets to transversally cross and jump scalar boundaries contributes to an exterior locus of development that reinforces the uneven development through rescaling processes. These ideas are now explored in the case of the Sydney metropolitan restructuring process.

4.3 Context: Sydney Metropolitan Planning Strategies and the Sydney Global City Region

Recent development of metropolitan planning in Sydney has been punctured by discontinuities in governance, frequent changes in leadership, and (arguably) accelerating the production of strategic plans without reflecting upon the results of past plans or their failures (Bunker et al. 2017). City and global-regional competition have been the driving force of these plans, with planners taking pains to mediate strategies of reform toward polycentricity, compactness, and growth for global recognition. As a result of local restructuring through globally prioritized development (see Grant and Drew 2017, pp. 383–407), the interrelationship between local governments (councils), state authorities, and industrial and commercial partners has emphasized the economic potential of spatial development to foster conditions that facilitate these organizations' development.

The consolidation of councils and reshaping of their borders has also formed a focal point in the conflict between the defense of some more vocal councils and the vociferous drive of the NSW Government to force amalgamations and to deliver their strategic planning reforms. These plans were promoted by the NSW Government under the guise of economic efficiencies, but the ad hoc body tasked with making recommendations for reform, the Independent Local Government Review Panel (ILGRP) had reported that there were also strategic reasons of "scale and capacity" for Sydney to achieve its "Global City" aspirations (ILGRP 2013, p. 100). Overall, the amalgamation process fell far short of the goal of consolidating 43 councils to 25, reaching just 35 by 2017. A report completed by the Legislative Council (the Upper House in the NSW State Parliament) found that the statutory body responsible for organizing the reforms, the Independent Pricing and Regulatory Tribunal (IPART), "projected economic benefits of council amalgamations [that] have been consistently overstated by the proponents of forced amalgamations and the costs and extensive diseconomies of scale caused by amalgamations have not been adequately explained by those same proponents" (Legislative Council 2015, p. xxii), with additional findings in the report opening avenues for legal challenge by councils in opposition.

The process, and at least partial failure of the intent of the NSW Government to create larger councils, has been the subject of sustained investigation elsewhere (see, for example, Drew and Dollery 2017; Drew and Grant 2017; Drew et al. 2016) and will be put to one side in this context. Rather, the discussion focuses upon strategies and reforms specifically at the city-region level. Reviewing the recent basis for these strategies through the 2005 *City of Cities* plan, 2010 *Metropolitan Plan for Sydney 2036* and following on to the 2014 *Plan for Growing Sydney*, the remainder of this section discusses the spatial strategy of these plans and the inherited legacy driven by the GSC.

Since the turn of the century, there has been a steady increase of the rate of strategic plans produced at the state level, dated at 2005, 2010, 2014, and the GSC production of draft strategic plans in 2016 and 2017, with the final plans due in 2018 (Fig. 4.1 shows the current outline of the Greater Sydney region). The *City of Cities* (2005)

Fig. 4.1 Greater Sydney Region Map. *Source* GSC (2017, p. 17)

plan was a comprehensive planning strategy that attempted to prescriptively detail metropolitan development, though much was influenced by business lobby group

the Property Council of Australia's *Metro Strategy: A Property Industry Perspective* (Bunker et al. 2017; Searle 2006). Significantly, the plan recognized the need to structure the metropolitan region toward a global audience. This (albeit segmented) structuration developed a series of "corridors" surrounding key strategic centers dependent on their function. A planned economic corridor formed an arc from Sydney Airport and centered on the global centers of Sydney and North Sydney toward Macquarie (technology) Park, renewal corridors such as along Parramatta Road, a major transport artery from the CBD west to Parramatta, and enterprise corridors yet to be indicated or clarified for their functions. These plans clearly illustrate the centralized spatial planning that prioritizes Sydney (and North Sydney) as harbor cities and at the center of "global Sydney" radiating toward the regional capital of Parramatta and the newly suggested centers of Liverpool and Penrith further west. All three of these western centers are categorized as river cities supporting the growth of Sydney (New South Wales Government 2005, p. 8).

The *Metropolitan Plan for Sydney 2036* (2010) builds on the *City of Cities* plan, maintaining an emphasis on being "global" and integrating the NSW Government's *Metropolitan Transport Plan: Connecting the City of Cities*. The metropolitan plan maintains the bifurcation of (global) Sydney attached to North Sydney as the key elements of "Global Sydney," and the regional cities of Parramatta as the second CBD, and Liverpool and Penrith (NSW Government 2010, p. 24). Addressing spatial development within a regional context, the plan intends to both "strengthen Sydney's roles as a globally competitive city" and "strengthen Parramatta's role as the premier Regional City and second CBD" (NSW Government 2010, p. 6). The plan also recognizes the 2005 plan, noting that "Sydney's spatial structure as a city of cities is a key factor in its national and global success" (NSW Government 2010, p. 24), with the center of Sydney CBD and North Sydney, and satellite cities of Parramatta, Liverpool, and Penrith supporting Sydney's growth. Emphasis is directed toward transportation and infrastructure in this plan with a desire for connecting the five city centers within their "one hour city" boundaries taken from the Marchetti principle (NSW Government 2010, p. 25). The subregional divisions are maintained from the 2005 plan, with the Inner West, Sydney City and East uncombined, as are the North and North East subregions (NSW Government 2010).

A key addition to the 2005 plan is the inclusion of a long-term strategy to restructure Sydney from a "city of cities" to 2036 and a "network scenario" for dates beyond 2036, to indicate that Parramatta, if we are to extrapolate and reasonably locate the cities from those discussed above, is to be *more* connected to the Sydney region than to the current Sydney CBD. The plan is also explicit in its aim to achieve the "city of cities" structure through effective density toward compact cities, leading to structure the five cities toward a network of distinct but not independent cities (NSW Government 2010, p. 39). Not to be forgotten is the "global economic corridor" that is to be expanded and connected to the second CBD, Parramatta.

The *Plan for Growing Sydney* (2014) carries over and continues the aspirations of the 2010 plan of maintaining Sydney CBD's international competitiveness and expansion of the Global Economic Corridor, but grounded in more detail is the desire to grow the importance of Western Sydney, especially Parramatta, through the

expansion of the Parramatta CBD and an extension toward the Olympic Peninsula (NSW Government 2014, pp. 6–7). This plan is explicit about the function of Western Sydney as the "key to Sydney's success" (NSW Government 2014, p. 16), with greater emphasis and activity in the Western region, with Parramatta, Norwest (business park), and Olympic Park becoming connected with the Global Economic Corridor. For the first time, we see the compartmentalization of Sydney into six subregions, overlaying the Local Government Areas (LGAs), many of which have been newly constituted by the controversial reform processes discussed above.

The Central subregion continues its role as the center of global Sydney and also the heart of the Global Economic Corridor. It will continue to be an "agglomeration of high-value industries and employment" (NSW Government 2014, p. 108) but also Sydney's cultural center. The West Central subregion has been flagged as a subregion of significant growth and infrastructure investment. Its capitalization as Sydney's second CBD is supported by the expansion of Parramatta CBD and extension of greater Parramatta toward the Olympic Peninsula (NSW Government 2014, p. 7). The West and South West subregions are categorized by their proximity to a proposed airport at Badgerys Creek, thus becoming Sydney's second international airport key to the growth potential that this offers. The North subregion maintains its function as a core office market, and the South subregion at the edge of the Global Economic Corridor has linkages to Sydney Airport and Port Botany. The plan maintains strong linkages with corresponding transport and infrastructure plans, and the delivery framework introduces the GSC to implement the plan. In this scenario, the GSC is regarded as an "independent entity" which is to "take ownership of the delivery of [the] metropolitan plan" (NSW Government 2014, p. 18). These plans sit above subregional and Local Environment Plans that provide legal instruments for establishing zoning and development controls.

The GSC, beginning with *A Draft Amendment to update A Plan for Growing Sydney* (2016c), has been tasked to both create draft subregional plans and update the Plan for Growing Sydney (2014) toward a unified *Towards our Greater Sydney 2056* plan before the end of 2017, but delays have moved this date to 2018. This amendment (seen in Fig. 4.2) "reconceptualises Greater Sydney as a metropolis of three cities" (GSC 2016c, p. 1), although with a growing emphasis on the Western subregions, and a Western Sydney City Deal (GSC 2016c, p. 4) to support the development of Western Sydney Airport. This City Deal is modeled after the UK City Deals, forming partnerships of federal, state, and local governments that work to fulfill the Australian Government's "Smart City Plan." The most significant material development is the formalization of the Greater Parramatta and Olympic Peninsula (GPOP). This plan explicitly aims to restructure the arrangement of cities and subregions in Greater Sydney, shifting its strategic and geographical center toward the proposed GPOP corridor to achieve its aim of a productive, liveable, and sustainable Sydney. These two strategies fit under the "once-in-a-generation" opportunity rhetoric (GSC 2016a, p. 25, b, p. 25) reorganizing Global Sydney around this relationship.

The GSC has redefined the borders of the six subregions with newly amalgamated councils, and the adjustment of some borders with the shifting of councils, such as the new Bayside council moving from the South to the Central subregion. Located in

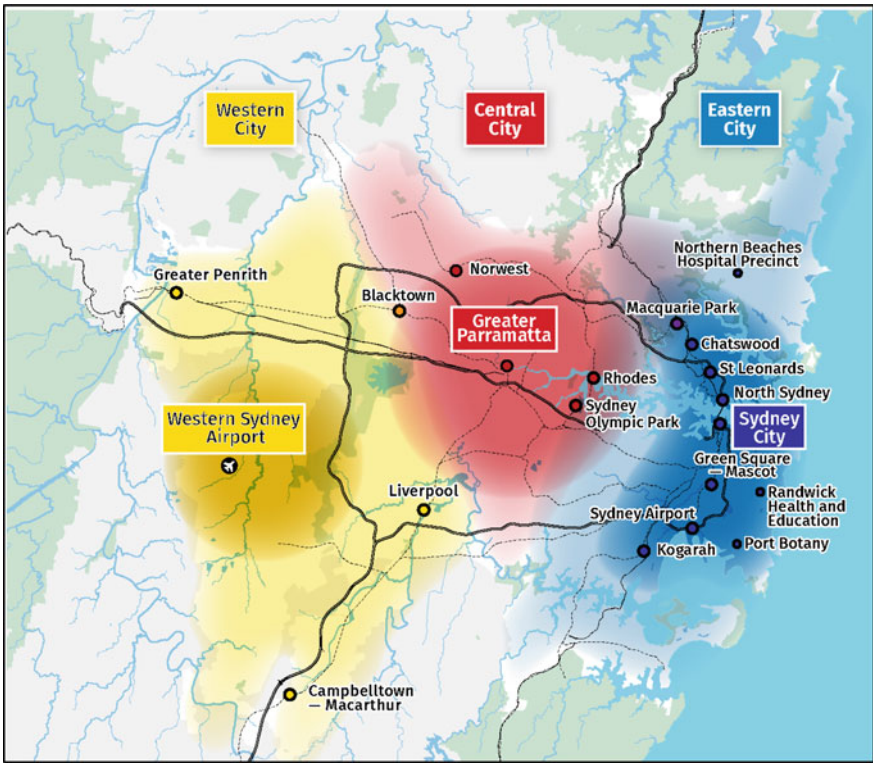

Fig. 4.2 A metropolis of three cities. *Source* GSC (2016c, p. 4)

Bayside council, Sydney Airport effectively anchors one end of the Global Economic Corridor, separating the South subregion from this strategic position, though the fuzzy boundaries of the "metropolis of three cities" ambiguously integrate it back into significance.

The subregional borders have been modified in quick succession. An explicit positioning of West Central as the Central City district relegates what used to be the Central subregion to being drawn relative to this new geographical center. The West and South West subregions have now been consolidated into a greater Western city district more neatly capturing the planned Western Sydney aerotropolis within a single subregion thereby consolidating the previous six subregions into five subregions.

The following section begins to analyze these plans relationally, looking toward the demarcations and different borderings that simultaneously draw divisions and integrate subregions and strategic centers.

4.4 Plans and Strategies and the Performance of Borders

The GSC, as a quasi-governmental statutory authority, exerts pressure and influence from both below (toward state government authorities) and above (to local government, residents, and commercial actors). Strategic plans have also clearly shifted from promoting the Sydney CBD as the global center of Sydney (from predominately 2005 and 2010, but also 2014), to restructuring Sydney Global City, to a competitive Sydney Global City Region shifting the economic and geographic center toward Parramatta and the proposed GPOP corridor. Most interestingly, the act of restructuring has seen the subregional borders redrawn, emphasizing and categorizing council areas through their global function and their role in the localized restructuring process.

The GSC is careful to define Sydney City as the "Eastern City" with Greater Parramatta as the "Central City" (GSC 2016a, p. 20). Yet read in unison with the 2016 subregional definitions, Sydney City is situated in the Central District and Greater Parramatta in the West Central District. These parallel definitions are cause for confusion, with selective partitioning leading toward a dissonant understanding of the structural changes of the strategy and geography of the Sydney Global City Region (see Pham 2017 for a relational analysis of these changing borders as a mobilizing argument for exogenous development). This, however, has been addressed in the 2017 update seen in Table 4.1.

The long-term strategy to situate Greater Parramatta as the center of Greater Sydney is one possible strategy to supplement the global positioning of Sydney City with a comparable city (region) as well as functionally connecting the region. To that extent, the vision for the GPOP is both strategically central to the region, nearly twice as large (GSC 2016e, p. 9), and allows the GPOP to be scalable toward global competition while functioning as a local anchor for infrastructural and transport connectivity. Although strategic planning from this lens assists in promoting the narrative of opportunity, the complexity and sometimes contradictory language of the strategy can impede its implementation.

The expansive territory of the GPOP corridor cannot be contained within the Central subregion and breaches the Eastern subregion, capturing the suburb of Rhodes

Table 4.1 Defining Sydney relationally

		Sydney City	Greater Parramatta	Western Sydney Airport
2016	Subregion	Central	West Central	West
	'Metropolis of three cities'	Eastern City	Central City	Western City
2017	Subregion	East	Central	West
	'Metropolis of three cities'	Eastern City	Central City	Western City

Source GSC (2016a, d, 2017)

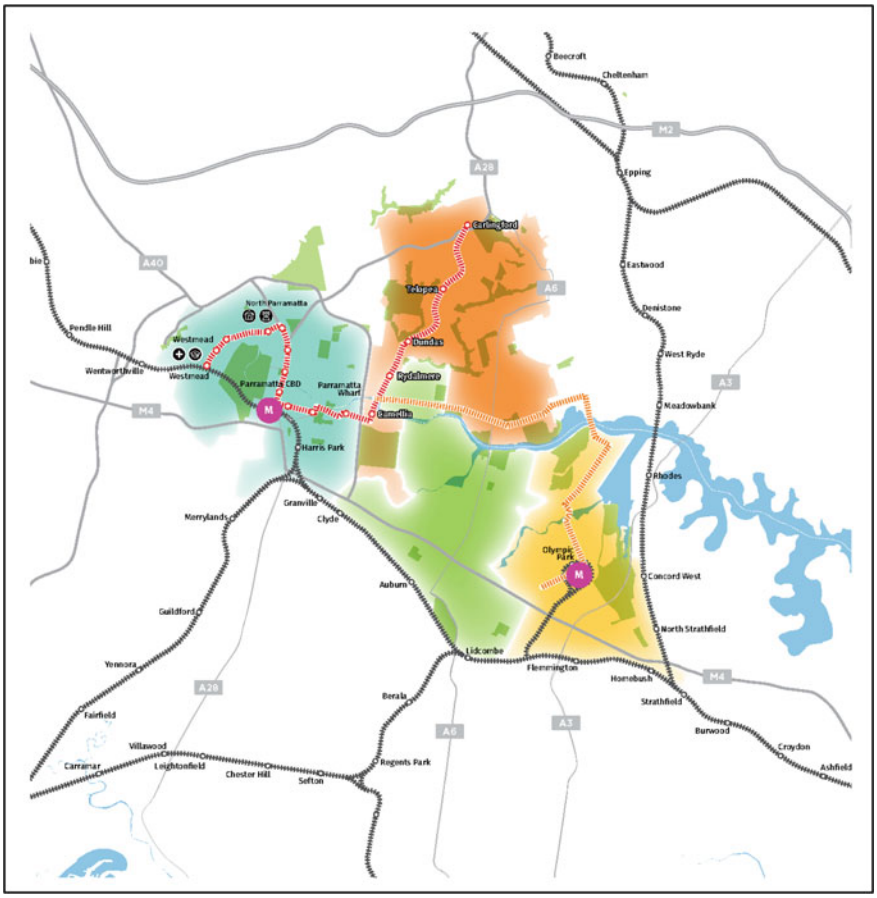

Fig. 4.3 2017 update of the GPOP corridor. *Source* GSC (2017, p. 55)

along the train line toward Strathfield and west toward Lidcombe. This appears necessary to connect the larger city centers of Strathfield and Parramatta with proposed light rail services (see Fig. 4.3).

The GPOP corridor is further divided into "four future quarters": the western quarter is identified as Parramatta City, and the Westmead Health and Education Super Precinct; the central quarter as Central Advanced Technology, Urban Services, and Industry; the north quarter as Next Generation Living Camelia to Carlingford; and the east quarter as Olympic Park Lifestyle Super Precinct. Arguably, the eastern quarter is of most interest, straddling multiple borderlines across Central and East subregions as well as the LGAs of Auburn, Strathfield, and Canada Bay councils. There is no mention of the potential conflicts that may ensue from this intersection; instead, the emphasis is isolated to the opportunity and potential benefits that this could bring to the GPOP and the region.

The looseness of the "metropolis of three cities" in relation to the hard borders of the five subregional boundaries also suggests different meanings that are directed toward a local and global audience. The harder subregional borders maintain some sense of "business-as-usual" definitions of the subregions in relation and continuity to previous plans, while also more closely follow existing council boundaries that may ease the path toward implementation. The fuzzy borders of a tripartite city crossing council lines and subregional boundaries surely force collaboration onto local government and the wider community. One of the metropolitan priorities developed is that of a collaborative city (GSC 2016c, p. 11). This precept will be tested when the ideal of collaboration is required instead of fostered, especially along existing borders.

The 2017 update of the strategic plan has already seen changes that reduce connectivity within the GPOP. The planned light rail now terminates at Olympic Park in the west of the corridor, isolating Strathfield LGA on the eastern edge of this corridor in this strategic configuration. The relatively frequent and rapid changes of local government, subregional, and priority precinct borders reflects the chaotic planning trajectories of the Sydney metropolitan area. This instability in both border configuration and infrastructure planning is at odds in attempts to align the plans of multiple levels of government and state government departments to deliver any comprehensive strategies toward a 10-, let alone a 40-year, trajectory.

4.5 Conclusion and Discussion

The somewhat stepwise incremental changes in the 2005 and 2010 plans have been updated by the more ambitious plans of recent years. The marked increase in the pace of production of new strategic plans and the ideology of change suggested in the most recent plans authored by the GSC seek a major restructuring of the urban form and the relationships of subregions in the Sydney Global City Region. In particular, the expansion of the Parramatta CBD and creation of the GPOP corridor calls for a fundamental revisioning of the city-region, shifting the geopolitical center from a globally recognized harbor city toward what is suggested as a river city that offers more potential for regional connectivity and can be scaled toward future growth.

The track record of the NSW Government and its preference to strong-arm major changes that affect the borders and governing of local councils appears to be a barrier against reform, especially when marketed under the guise of transparency and consultation (see, for example, ILGRP 2013). These major changes that structure regions and growth precincts as globally significant both define clear demarcations of subregions while also cutting across under high-priority zones of transformation. These simultaneously solid and porous borders align with the fuzziness and liminal quality of sociospatial relations that are only temporarily stabilized for the enactment of visioning statements through exogenous means. This chapter has reviewed only the interstice of two subregions and through only one significant strategic growth area. However, given the high-value attribution and visible attraction of this major

transformation, even the parsimonious details of the transborder zones crossed in the GPOP corridor suggest less detail may be given to strategies in less globally significant areas.

Utilizing border ontologies in the formation of subregions in the Sydney Global City Region has allowed a globalizing discourse to be read into their construction. The relative fixity of local actors runs against the transversally mobile power of firms and markets, and state government actors. This embedding of a globally prioritizing discourse reinforces the hierarchical relations of territoriality and the implied agency this offers to local and community actors. However, the power made visible by these processes also allows for reform in the planning process to more significantly mediate the impact of these urban transformations.

References

Agnew, J. (1994). The territorial trap: The geographical assumptions of international relations theory. *Review of International Political Economy, 1*(1), 53–80.

Anderson, B. (1983). *Imagined communities: Reflections on the origins and spread of nationalism*. London: New Left Books.

Baines, M. A., & Miles, N. T. G. (1981). New South Wales. In J. Power, R. Wettenhall, & J. Halligan (Eds.), *Local government systems of Australia* (pp. 123–228). Canberra: AGPS.

Brenner, N. (2014). *Implosions/explosions: Towards a study of planetary urbanization*. Berlin: Jovis.

Brenner, N., & Elden, S. (2009). Henri Lefebvre on state, space, territory. *International Political Sociology, 3*(4), 353–377.

Brenner, N., Peck, J., & Theodore, N. (2010). After neoliberalization? *Globalizations, 7*(3), 327–345.

Brunet-Jailly, E. (2005). Theorizing borders: An interdisciplinary perspective. *Geopolitics, 10*(4), 633–649.

Bunker, R., Crommelin, L., Troy, L., Easthope, H., Pinnegar, S., & Randolph, B. (2017). Managing the transition to a more compact city in Australia. *International Planning Studies*, 1–16.

Burridge, A., Gill, N., Kocher, A., & Martin, L. (2017). Polymorphic borders. *Territory, Politics, Governance, 5*(3), 239–251.

Davies, A. (2016, April 5). Council amalgamations: More councils join legal battles with state government over mergers. *Sydney Morning Herald*. http://www.smh.com.au/nsw/council-amalgamations-more-councils-join-legal-battle-with-state-government-over-mergers-20160405-gnysag.html. Accessed May 14, 2017.

De Genova, N. (2013). Spectacles of migrant 'illegality': The scene of exclusion, the obscene of inclusion. *Ethnic and Racial Studies, 36*(7), 1180–1198.

Drew, J., & Dollery, B. E. (2017). Hired guns: Local government mergers in New South Wales and the KPMG modelling report. *Australian Accounting Review, 27,* 265–272.

Drew, J., & Grant, B. (2017). Multiple agents, blame games and public policy-making: The case of local government reform in New South Wales. *Australian Journal of Political Science, 52*(1), 37–52.

Drew, J., Grant, B., & Fisher, J. (2016). Re-evaluating local government amalgamations: Utility maximisation meets the Principle of Double Effect (PDE). *Policy and Politics: An International Journal, 45*(3), 379–394.

Elden, S. (2013). *The birth of territory*. Chicago: University of Chicago Press.

Gellner, E. (1983). *Nations and nationalism*. Oxford: Oxford University Press.

Grant, B., & Drew, J. (2017). *Local government in Australia: History, theory and public policy*. Singapore: Springer.

Grant, B., Ryan, R., & Lawrie, A. (2015). Dirty hands and commissions of inquiry: An examination of the Independent Local Government Review Panel. In M. Beard & S. Lynch (Eds.), *Conscience, leadership and the problem of 'dirty hands' (Research in ethical issues in organisations: Vol. 13)* (pp. 19–39). New South Wales: Emerald Group Publishing Limited.

GSC [Greater Sydney Commission]. (2016a). *Draft Central District Plan*. New South Wales: GSC.

GSC [Greater Sydney Commission]. (2016b). *Draft West Central District Plan*. New South Wales: GSC.

GSC [Greater Sydney Commission]. (2016c). *A Draft Amendment to Update A Plan for Growing Sydney*. New South Wales: GSC.

GSC [Greater Sydney Commission]. (2016d). *Greater Sydney Draft District Plan Map Atlas*. New South Wales: GSC.

GSC [Greater Sydney Commission]. (2016e). *Connecting the Heart of Greater Sydney.* Evidence Pack: Stakeholder Engagement Background Paper. New South Wales: GSC.

GSC [Greater Sydney Commission]. (2017). *Revised Draft Central City District Plan*. New South Wales: GSC.

Hu, R. (2012). Shaping a global Sydney: The City of Sydney's planning transformation in the 1980s and 1990s. *Planning Perspectives, 27*(3), 347–368.

ILGRP [Independent Local Government Review Panel]. (2013). *Revitalising local government.* Final Report of the NSW Independent Local Government Review Panel.

Jessop, B., Brenner, N., & Jones, M. (2008). Theorizing sociospatial relations. *Environment and Planning D: Society and Space, 26*(3), 389–401.

Kaiser, R. J. (2012). Performativity and the eventfulness of bordering practices. In T. W. Wilson & H. Donnan (Eds.), *Companion to border studies* (pp. 522–537). Chichester: Wiley.

Larcombe, F. (1978). *The advancement of local government in New South Wales: 1906 to the present* (Vol. 3). Sydney: Sydney University Press.

Lefebvre, H. (1991 [1974]). *The production of space.* Oxford: Blackwell.

Legislative Council. (2015). *General Purpose Standing Committee No. 6, Local Government in New South Wales*. https://www.parliament.nsw.gov.au/committees/DBAssets/InquiryReport/ReportAcrobat/5331/Report%201%20-%20Local%20Government%20in%20NSW%20-%2029%20October%2020.pdf. Accessed May 14, 2017.

Leitner, H., Peck, J., & Sheppard, E. S. (2007). *Contesting neoliberalism: Urban frontiers*. New York: Guilford Press.

McGuirk, P. M. (2004). State, strategy, and scale in the competitive city: A neo-Gramscian analysis of the governance of 'global Sydney'. *Environment and Planning A, 36*(6), 1019–1043.

McGuirk, P. M. (2005). Neoliberalist planning? Re-thinking and re-casting Sydney's metropolitan planning. *Geographical Research, 43*(1), 59–70.

Merrifield, A. (2013). The urban question under planetary urbanization. *International Journal of Urban and Regional Research, 37*(3), 909–922.

Newman, D. (2011). Contemporary research agendas in border studies: An overview. In D. Wastl-Walter (Ed.), *The Ashgate research companion to border studies* (pp. 33–47). Surrey: Ashgate.

New South Wales Government. (2005). *City of cities: A plan for Sydney's future*. Sydney: New South Wales Government.

New South Wales Government. (2010). *Metropolitan plan for Sydney 2036*. Sydney: New South Wales Government.

New South Wales Government. (2014). *A plan for growing Sydney*. Sydney: New South Wales Government.

Paasi, A. (1998). Boundaries as social processes: Territoriality in the world of flows. *Geopolitics, 3*(1), 69–88.

Paasi, A. (2004). Place and region: Looking through the prism of scale. *Progress in Human Geography, 28*(4), 536–546.

Paasi, A. (2008). Is the world more complex than our theories of it? TPSN and the perpetual challenge of conceptualization. *Environment and Planning D: Society and Space, 26*(3), 405–410.
Paasi, A. (2009). Bounded spaces in a 'borderless world': Border studies, power and the anatomy of territory. *Journal of Power, 2*(2), 213–234.
Paasi, A. (2012). Border studies reanimated: going beyond the territorial/relational divide. *Environment and Planning A, 44*(10), 2303–2309.
Paasi, A., & Metzger, J. (2017). Foregrounding the region. *Regional Studies, 51*(1), 19–30.
Parker, N., & Vaughan-Williams, N. (2009). Lines in the sand? Towards an agenda for critical border studies. *Geopolitics, 14*(3), 582–587.
Pham, K. (2017). *Relational planning and performative sub-regional strategies: Analysing the construction of the Sydney global city region through an assemblage framework*. Paper presented at State of Australian Cities Conference, Adelaide.
Sansom, M. (2015). NSW council sackings threat real: Local government expert. Government News. http://www.governmentnews.com.au/2015/11/nsw-council-sackings-threat-real-local-government-expert. Accessed May 14, 2017.
Sassen, S. (1991). *The global city: New York, London, Tokyo*. Princeton, NJ: Princeton.
Sassen, S. (2013). When territory deborders territoriality. *Territory, Politics, Governance, 1*(1), 21–45.
Searle, G. (2006). Is the city of cities metropolitan strategy the answer for Sydney? PRACTICE REVIEWS. *Urban Policy and Research, 24*(4), 553–566.
Steele, W., Alizadeh, T., & Eslami-Andargoli, L. (2013). Planning across borders. *Australian Planner, 50*(2), 96–102.
Swyngedouw, E. (2004). Globalisation or 'glocalisation'? Networks, territories and rescaling. *Cambridge Review of International Affairs, 17*(1), 25–48.
Van Houtum, H., & Van Naerssen, T. (2002). Bordering, ordering and othering. *Tijdschrift voor economische en sociale geografie, 93*(2), 125–136.
Ward, K., & Jonas, A. E. (2004). Competitive city-regionalism as a politics of space: A critical reinterpretation of the new regionalism. *Environment and Planning A, 36*(12), 2119–2139.

Part II
Challenges

Chapter 5
Upgrading Housing Settlement for the Urban Poor in Indonesia: An Analysis of the *Kampung Deret Program*

Deden Rukmana

Abstract Indonesia's formal housing policies—self-help housing, public housing, and cross-subsidization—have not adequately addressed housing provision for the urban poor. Most poor residents of Indonesian cities live in spontaneous informal settlements referred to as *kampungs*. Low-income housing markets in Indonesia are far beyond the reach of *kampung* residents in Jakarta and other Indonesian cities. After the fall of the New Order regime in May 1998, the Indonesian system of government became more decentralized and transparent. The new Housing and Settlement Areas Law 1/2011 authorized the local governments to provide housing for low-income households and to upgrade slums. The new Fiscal Decentralization Law 32/2014 granted local government a greater role in funding development programs, including housing provision program for low-income residents. The *Kampung Deret Program* is a result of the implementation of these two new laws. The program is the first housing program initiated and funded by a local government in Indonesia. This chapter reviews the self-help housing policy, the development of public housing, and the cross-subsidization housing policy, and discusses how the *Kampung Deret Program* differs from these three Indonesian formal housing policies. The research question of this chapter is: "What main ingredients are important and have more impact on upgrading housing settlements for the urban poor in Indonesian cities?" The chapter concludes by discussing some policy implications from the implementation of the *Kampung Deret Program*.

Keywords Housing policy · Poverty · Slums · Upgrading housing settlement Urban poor

D. Rukmana (✉)
Urban Studies and Planning Program, Savannah State University, 3219 College St., Savannah, GA 31404, USA
e-mail: rukmanad@savannahstate.edu

B. Grant et al. (eds.), *Metropolitan Governance in Asia and the Pacific Rim*,
https://doi.org/10.1007/978-981-13-0206-0_5

5.1 Introduction

Informal housing has been a critical issue for many cities in the Global South for several decades. More than half of the residents of these cities live in slums (Chiodelli and Moroni 2013; Mukhija 2001; van Horen 2000). Informal housing is a product of poverty and rapid urbanization (Gonzalez 2008), predominantly a result of rural-to-urban migration. Many migrants lack job opportunities in the cities and resort to informal housing settlements, and informal housing settlements in many cities in the Global South are expected to proliferate as migration from rural areas continues (Gonzalez 2008).

Indonesia, with a population of over 250 million, has also been experiencing rapid urbanization in the last few decades. The urban population in Indonesia increased significantly from 101.3 million in 2000 to 135.6 million in 2015 (BPS 2015). This rapid urbanization has caused many problems in Indonesian cities, including a lack of housing for the urban poor. A majority of the urban poor cannot afford to buy housing provided by either the State Housing Provider Agency (PERUMNAS) or private developers due to their low and unstable incomes. This forces them to find solutions such as inappropriate self-built houses and squatting in slums and squatter settlements (Sudarmo 1997; Tunas and Peresthu 2010).

In order to meet annual demand from urban population growth, an estimated 820,000–920,000 new housing units are needed in Indonesian cities annually. In 2014, private developers and the State Housing Provider Agency produced only 400,000 new housing units, of which 50,000–100,000 were designated for the subsidized mortgage program. The Indonesian Government's subsidy programs provide an estimated 150,000–200,000 housing units per year, including incremental improvements to housing, rental housing, and social housing (World Bank 2014). The remaining newly urbanized households must resort to informal housing units or additional overcrowding.

Most poor residents in Indonesian cities live in spontaneous informal settlements referred to as *kampungs*. *Kampungs* are scattered throughout the city and have limited water supply, inadequate drainage, and narrow alleys and footpaths, and are characterized by the poor management of solid waste (Winarso 2010). *Kampungs* have small plots of land for each dwelling and low-quality building structures and materials. Most of the dwellings are constructed gradually by the residents from permanent and nonpermanent materials, depending largely on what the residents can afford (Tunas and Peresthu 2010). Poor *kampung* residents are marginalized urban residents who illegally construct their dwellings on state land such as disposal sites, riverbanks, and railway tracks, or on private unoccupied land (Winayanti and Lang 2004).

The issue of providing housing for the urban poor in Indonesian cities is complex. Forty percent of Indonesian households live below or close to the poverty line and cannot afford even a basic housing unit. A formal housing unit is not a feasible option for the poor in Indonesia without deep and expensive subsidies (World Bank 2014).

Over the past decade, Indonesia has implemented three housing policies: (i) self-help housing policies such as the *Kampung Improvement Program* (KIP), the Community-based Housing Development (P2BPK), and Self-help Housing Assistance (BSPS); (ii) the PERUMNAS Program, the national program for public housing development; and (iii) the cross-subsidized housing policy, which is an instrument for balancing segmentation in the housing market and linking the growing number of high end houses to provision of more low-cost houses (Minnery et al. 2013; Tunas and Peresthu 2010). Despite these three housing policies, informal housing settlements remain a critical issue in many Indonesian cities.

The *Kampung Deret Program* is a new local housing program that builds low-rise apartment blocks for very low-income residents in Jakarta's *kampungs*. The program was initiated by the Jakarta City administration in October 2013 and gained considerable support from among the poor in Jakarta's *kampungs*. The program built nearly 4500 permanent housing units for the urban poor in Jakarta in less than 1 year. The *Kampung Deret Program* aimed to create houses and an environment to provide ideal health standards and to assist residents obtain proper ownership documents. Despite support from the residents of Jakarta's *kampungs*, the Jakarta City administration discontinued the *Kampung Deret Program* at the end of 2014, citing the lack of financial support from the Jakarta City Council and the legal issue of the lands being occupied (J. Siregar, personal communication, August 4, 2017).

This chapter reviews the self-help housing policy, the PERUMNAS Program of public housing development, and the cross-subsidization housing policies. The discussion includes an account of housing finance and the interplay of the state and the market in housing outcomes. The chapter suggests that the three national housing policies have not addressed the issue of housing provision for the urban poor in Indonesia. It then discusses how the *Kampung Deret Program* differed from the three national housing policies for the Indonesian urban poor. The discussion includes a review of land tenure, funding and beneficiaries, the housing development process, and changes in social and economic conditions. Using the case of *Kampung Deret Program*, this chapter explores ways of moving beyond a focus on land legalization, self-help housing, and government subsidies for addressing the housing problem for the poor in Indonesia. The main research question is: "What ingredients are important and have more impact on upgrading housing settlements for the urban poor in Indonesian cities?" The chapter concludes by offering some policy implications from the implementation of *Kampung Deret Program*.

Data for this study derive from multiple sources, including interviews with three planners in Jakarta, three academics from the Bandung Institute of Technology and Trisakti University, a lawyer of the Jakarta Legal Aid Institute, and some residents of the *Kampung Deret Program* in the Petogogan Jakarta during a field trip in June–July 2015. The interviews have been supplemented with secondary materials from federal and local housing documents, published and unpublished reports, and newspapers and news magazine articles.

5.2 Literature Review of Upgrading Housing Settlements

A review of the literature on strategies for upgrading housing settlements starts by tracing the Modernist Movement in the first half of the twentieth century. Le Corbusier, Walter Gropius, and Mart Stam, the central figures of Modernism, forcefully advocated demolition of the old and crowded parts of cities and redeveloping new and large housing estates (Mukhija 2001; Wassenberg 2004). They called for refurbishing, modernizing, or demolishing old housing units in order to improve the quality of life of millions of urban dwellers. For some architects, Modernism was considered a solution to the housing problem (Mukhija 2001; Rowe 1993).

The Modernist idea of demolition and upgrading inspired many Western countries to launch urban renewal programs. Similarly, many cities in the Global South initiated slum clearance programs (Mukhija 2001) to demolish substandard housing units and replace them with new housing units. Slum clearance programs and urban renewal programs led to a loss in the total number of available housing units (Mukhija 2001; Wassenberg 2004). Slum clearance programs were also justified with an appeal to pathological cultural traits such as dependence, lack of ambition, and an inability to adapt to modern urban norms (AlSayyad and Roy 2003; Gonzalez 2008).

In his seminal book *Man's Struggle for Shelter in an Urbanizing World*, Abrams (1964) argued that slum clearance programs did not address the housing problem in developing countries. Abrams saw slum clearance programs as only a reaction to the realities of squatter settlement (Pugh 2001). By the late 1960s, the Modernist idea of demolition was strongly criticized, particularly by leading scholars John Turner and William Mangin (for an account, see Gonzalez 2008; Mukhija 2001).

In his book *Housing by People: Towards Autonomy in Building Environments*, Turner (1977) argued that housing was not only a commodity but also a process or activity, and that establishing desirable housing standards was problematic. Further, Turner suggested that slum clearance programs only moved substandard houses to new places, particularly the urban periphery (Gonzalez 2008; Turner 1977). Mangin (1967) argued that substandard housing was not evidence of social pathology; rather, it was a rational response to rapid urbanization and housing shortages. Moreover, Turner (1977) asserted that there was no need to demolish slums because they were part of the solution. His idea of "self-help," based on his work in Peru, was used to implement strategies of upgrading for improving and consolidating the existing homes of slum dwellers. He also argued that perceived security of tenure would result in the progressive upgrading of slums through individual and community self-help (Gonzalez 2008; Mukhija 2001). According to this theory, self-help incrementalism was superior to total redevelopment in terms of affordability, flexibility, and encouraging human creativity in seeking value in life (Pugh 2001). In self-help incrementalism, slum dwellers improved their housing incrementally by using better materials and adding more space (Mukhija 2001; Turner 1968, 1977).

In the 1970s and 1980s, urban renewal programs and slum clearance programs became less prominent due to criticisms by Turner (1977), and others, and a lack of financial resources. Instead, the strategy of improving housing settlement shifted to

in situ upgrading and tenure legalization. Turner's idea of "self-help" was appealing to policy-makers in the Global South because it was an inexpensive solution to the housing crisis (Choguill 1995; Gonzalez 2008; Huchzermeyer 2009). Many international agencies led by the World Bank also adapted Turner's idea (Mukhija 2001).

In situ upgrading represents an incremental improvement to the delivery of housing (Mistro and Hensher 2009). It aims to minimize the number of slum dwellers who are relocated to other sites and to reduce the extent of disruption to the social and economic networks of slum dwellers. Choguill et al. (1993) identified three main stages of in situ upgrading: primary, intermediate, and ultimate-level services for the improvement of an informal settlement. Moreover, giving slum dwellers legal title to the land they occupy by introducing tenure legalization was widely promoted by the World Bank as a means of addressing both the lack of affordable housing and poverty in urban areas in the Global South (Gonzalez 2008; Mukhija 2001; Pugh 2001). Tenure legalization was revived by the work of De Soto (1989, 2000). He argued that the poor in African, Asian, and Latin American cities actually owned vast assets, notably their self-constructed housings, but that these assets were not recognized by the formal legal system and as such could not be used as capital for business and home improvement loans. One of De Soto's prescriptions was the integration of extralegal arrangements into the formal legal system.

5.3 Democratization of Indonesian Government and the Transformation of Housing Policy

Under the New Order regime initiated by President Suharto in 1966, Indonesia enjoyed steady economic growth until the serious economic and monetary crisis the hit many Asian countries in July 1997. The failure of the New Order regime to address the impacts of the economic and monetary crisis led to massive protests and riots in many places. President Suharto eventually resigned on May 21, 1998, ending his authoritarian rule after 32 years in power.

The fall of the New Order regime in May 1998 brought about a change in government but also, more importantly, led to a new era of *reformasi*, or reform, that dismantled the authoritarian political structure and replaced it with a more pluralistic and accountable system of government. The *reformasi* program also sought to remove economic monopolies, fight corruption, collusion, and nepotism, and promote accountable and clean government (Anwar 2005).

Reformasi included significant reform of the hierarchy between the central, provincial, and district governments. Most policy areas, including spatial planning, health, education, public works, and housing were transferred from the central government to local governments. The *Regional Autonomy Law 32/2004* and *Fiscal Decentralization Law 33/2004* shifted several government functions and responsibilities from central to local government and created a greater role for subnational governments generally, including Provinces, Districts (*Kabupaten*), and Municipal-

ities (*Kota*) in several important areas of functional responsibility. These new laws have the potential for making housing provision, urban planning, and development in Indonesia more locally managed (Firman 2003, 2008).

The New Order regime had enacted the first law on housing and settlement areas in 1992, with the *Housing and Settlement Areas Law 4/1992* that reflected the regime's authoritarian rule. The new system of government in Indonesia after the fall of the New Order regime enacted a more democratic and accountable institutional setting. The new *Housing and Settlement Areas Law*, enacted in January 2011, completely replaced the earlier legislation.

The *Housing and Settlement Areas Law 1/2011* reflects the new system of government in Indonesia, particularly the new decentralization laws and the enthusiasm of the Indonesian people for a more transparent and accountable system of government. The law provides a legal framework to advance housing provision for low-income residents (Mungkasa 2013). It stipulates a housing subsidy and assistance for low-income residents whereby the government is required to assist low-income residents through tax incentives, insurance permits, the provision of land and public utilities, and land title registrations.

The law also stipulates that provincial and local governments have a greater level of responsibility for housing provision than does the central government (Mungkasa 2013). Provincial and local governments are also responsible for collecting housing data, empowering housing stakeholders, and coordinating the use of environment-friendly technology and design.

Additionally, the law provides for policy for slum areas, with provincial and local governments required to identify and delineate such areas, prevent their expansion, and upgrade residents' quality of life. According to Article 97 of the Law, the upgrading of slum areas includes restoration, revitalization, and resettlement of slum areas.

5.4 Contemporary Housing Policies in Indonesia

The dominant form of housing production in Indonesia is self-built housing which accounted for more than 70% of houses produced in 2013 [National Indonesian Socioeconomic Survey (SUSENAS)], as presented in Table 5.1. Housing units provided by developer or builder account for less than 9% of stock in urban areas and less than 1% in rural areas. The dominance of self-built housing in Indonesia is due primarily to the dynamic informal housing sector (Crane et al. 1997; Leaf 1993; Struyk et al. 1990).

The informal housing sector is found mostly in Indonesian *kampungs* (Leaf 1993; Tunas and Peresthu 2010). By definition, *kampungs* are unplanned, incrementally developed areas and are frequently associated with slums (Winarso 2010). Informal and self-built housing in Indonesian *kampungs* constitutes the majority of new housing starts in Indonesia; indeed, more than 40% of new houses in the Metropolitan Jakarta between 2002 and 2007 were self-built (Monkkonen 2013). The proportion

Table 5.1 Type of housing acquisition in 2013 (%)

Acquisition method	Area category		
	Urban (%)	Rural (%)	Total (%)
Bought from a developer/builder	8.56	0.36	3.96
Bought second hand	9.93	3.31	6.10
Self-built	62.03	78.12	71.07
Other[a]	19.48	18.41	18.87
Total	100.00	100.00	100.00

Source BPS (2014)
[a]Includes inheritance, bequest, administrative allocation, and official housing

Table 5.2 Type of housing acquisition between 2002 and 2007 (%)

Acquisition method	Category				
	Jakarta (%)	Large (%)	Medium (%)	Small (%)	Towns (%)
Households moving 2002–2007					
Bought from a developer/builder	26.7	17.5	17.2	10.4	9.1
Bought second hand	19.5	15.5	12.6	16.1	11.2
Self-built	40.2	52.2	55.4	60.1	63.2
Other[a]	13.7	14.7	14.9	13.4	16.4
Total	100.0	100.0	100.0	100.0	100.0
Household (thousands)	459.6	911.8	391.9	342.9	349.6

Source Adopted from Monkkonen (2013) and Mungkasa (2013)
[a]Includes inheritance, bequest, administrative allocation, and official housing

of self-built houses in other Indonesian cities was higher for the same period than in Metropolitan Jakarta, as presented in Table 5.2.

5.4.1 Self-help Housing

The informal housing sector or self-help housing has become an integral part of the urban landscape in many developing countries, including Indonesia. Such informal settlements accommodate millions of urban poor people without access to public housing (Biderman et al. 2008; Brueckner 2013; Brueckner and Selod 2009; Tunas and Peresthu 2010). Indonesian *kampungs* also house the greatest number of poor people. *Kampungs* are characterized by high population density, poor living conditions, and poor infrastructure and public facilities (Tunas and Peresthu 2010; Winayanti and Lang 2004).

As noted in the Introduction, Indonesia has been implementing three self-help housing policies: the Kampung Improvement Program (KIP), the Community-based Housing Development Program (P2BPK), and the Self-help Housing Assistance (BSPS). The KIP was launched in 1969 by Ali Sadikin, the (then) Governor of Jakarta, to upgrade living conditions. The KIP was the world's first urban slums upgrading project and was funded by the World Bank until 1982 (Juliman and Durrendon 2006; Rukmana 2005; Silas 1992). The KIP was expanded and implemented by the Ministry of Public Works under the national five-year plans (*Repelitas*) until the *Repelita* V in 1989–1994. The KIP budget accounted for approximately 4.7% of the development budget (Silver 2008). In the 1980s, the KIP was reconfigured into the Community Infrastructure Program as part of the Integrated Urban Infrastructure Development Program (IUIDP). The new KIP's threefold approach consisted of improving the physical quality (*Bina Lingkungan*), the quality of life (*Bina Manusia*), and the economy (*Bina Usaha*) (Silver 2008; Tunas and Peresthu 2010).

The Community-based Housing Development Program or *Pembangunan Perumahan Bertumpu pada Komunitas* (P2BPK) promotes informal and community-based housing delivery. This program encourages active participation of communities in mobilizing resources, including finance and labor, to lower housing costs (Rukmana 2005; Siregar 2012). P2BPK was inspired by a project sponsored by UNCHS and UNDP in 1988. In conjunction with the Ministry of Public Housing of the Republic of Indonesia, UNCHS and UNDP implemented two housing projects in Cengkareng, Jakarta (housed 156 households) and Rancaekek, Bandung City (43 households). Owing to the success of those pilot projects, the Ministry of Public Housing expanded and launched the P2BPK to other Indonesian cities in 1991.

The Ministry of Public Housing launched the Self-help Housing Assistance program, known as BSPS, in 2006 (Heripoerwanto 2012). The BSPS aims to assist low-income households in urban and rural Indonesia. The Ministry of Public Housing Regulation 14/2011 stipulates that the BSPS is to develop new houses, improve house quality, and develop public infrastructure and utilities. Assistance includes cash and building materials. The Ministry of Public Housing Regulation 14/2011 also stipulates that BSPS recipients must be Indonesian citizens who are living below the poverty line, married, own a land title and have a bank account. The number of built or improved housing units and built public infrastructure and utilities by the BSPS in Indonesia increased from 3550 in 2006 to 16,403 units in 2011 (Heripoerwanto 2012).

5.4.2 Public Housing

The public housing program in Indonesia started in the 1950s when a few government ministries and housing cooperatives created by local governments built low-cost housing. This approach generated a handful of new housing units and was targeted only at the civil service corps (Silver 2008). Following a National Housing Workshop in 1974, the Government of Indonesia established three key institutions to address

housing problems: the National Housing Authority (*Badan Kebijaksanaan Perumahan Nasional*), which is responsible for formulating the national housing policy; the PERUMNAS Corporation, which is responsible for providing low-cost housing in Indonesian urban areas; and the State Savings Bank (Silver 2008; Tunas and Peresthu 2010; UN Habitat 2003).

The PERUMNAS Program is the national public housing program run by the PERUMNAS Corporation. The program is supported and subsidized by the State Savings Bank, known as BTN for its initials in Bahasa Indonesia. The BTN first offered loans for purchasing houses in 1976 and in the 1980s became central to the housing finance market, particularly for low- and middle-income households. Two-thirds of the BTN's lending funds derive from the Ministry of Finance and the Bank of Indonesia at rates well below market levels (Lee 1996).

The PERUMNAS Program offered loans of up to 20 years through the BTN with low interest rates of 8.5–14% with a 10% down payment (Tunas and Peresthu 2010). The program aimed to provide low-cost housing units for low- and middle-class-income households with a monthly income of less than Rp. 1.5 million or US$125. The PERUMNAS Program built housing units on lot sizes of 18–36 m^2. The dimensions of the houses are based on the minimum requirements for individual space, good lighting, and air circulation. The PERUMNAS Program also offers a ready-to-build land parcel on lots of 54–72 m^2 for people who prefer to build a house in their own way (Tunas and Peresthu 2010).

Loans from the BTN are available to those who have formal collateral such as a secure salary and stable employment (Sastrosasmita and Nurul Amin 1990). About 80% of BTN borrowers are government employees, since civil servants can provide formal collateral and are considered lower risk. Those working in informal sectors or those without any formal collateral are not eligible for loans from this particular program.

In addition to core houses, the PERUMNAS Program builds apartments for ownership (Lee 1996). The annual production of core houses and apartments remains far below the annual average demand of 800,000 units (Tunas and Peresthu 2010). The number of core houses and apartments built by the PERUMNAS Program in Indonesia from 2008 to 2012 is represented in Table 5.3.

Table 5.3 Housing production, PERUMNAS Program, 2008–2012

Year	Housing unit category	
	Apartment	Core house
2008	805	5216
2009	10	5870
2010	1402	10,522
2011	316	9675
2012	0	10,555

Source BPS (2014)

Lee (1996) and Monkkonen (2013) argue that a major constraint to increased development of formal housing is costly property registration and titling. Indonesia has one of the most costly construction permit processes in Asia (Monkkonen 2013). The traditional or customary system of land ownership plays an important role in the high-functioning informal housing sector in Indonesia. The dynamic informal housing sector allows many Indonesian families to secure their housing outside of the formal housing sector. Many Indonesian families secure their housing through self- built housing on land acquired through inheritance.

5.4.3 Cross-Subsidy

The Government of Indonesia, through three ministries—the Ministry of Home Affairs, the Ministry of Public Housing, and the Ministry of Public Works—issued a joint decree on November 16, 1992 for a socially integrated housing policy (*Lingkungan Hunian Berimbang*). The policy is a cross-subsidy program and an instrument for balancing segmentation in the housing market (Silver 2008; Yuniati 2013). This policy, commonly referred to as the 1:3:6 policy, requires developers of luxury housing to build three medium- and six low-cost housing units for every unit of luxury house they build (Silver 2008; Tunas and Darmoyono 2014). The socially integrated housing policy has two main objectives, namely, producing more affordable houses and encouraging more socially integrated housing development through mixed-income residential areas (Mungkasa 2013; Tunas and Darmoyono 2014; Yuniati 2013).

The policy stipulates that low-cost housing units should be built on the same site as medium and luxury housing units. However, in practice, this policy has been difficult to enforce (Widoyoko 2007), probably because it was only a ministerial decree and it was commonplace for the low-cost units to be built after the luxury and medium housing units were completed (Mungkasa 2013; Silver 2008). The developers of a luxury waterfront community of Pantai Indah Kapuk in North Jakarta built more than 1000 luxury and medium housing units before they even began their work on low-cost apartments; however, due to the fiscal crisis, they discontinued the development of low-cost apartments (Silver 2008). In addition, many developers built luxury and medium housing units first and built low-cost housing units later on different sites (Tunas and Darmoyono 2014).

The 1:3:6 policy has not been easy to implement. In most cases, developers negotiated the housing composition with local governments and even replaced low-cost housing units with public facilities and infrastructure development, thereby avoiding their obligation to provide low-cost housing units (Tunas and Darmoyono 2014). In 2013, the Ministry of Public Housing identified only five housing projects that fully implemented the 1:3:6 policy: Telaga Kahuripan in Bogor Regency (750 ha), Bukit Semarang Baru in Semarang Regency (1250 ha), Bukit Baruga in Makassar (1000 ha), Driyorejo in Gresik Regency, and Kurnia Jaya in Batam (100 ha) (Mungkasa 2013).

Due to ineffective implementation, the Minister of Public Housing amended the cross-subsidy policy in May 2012. The new policy (The Minister of Public Housing Regulation 10/2012) stipulates that developers are required to build two medium and three low-cost housing units for every unit of luxury house they build. Further, the sites of low-cost housing units should also account for a minimum of 25% of the total residential project areas. An important new provision in the cross-subsidy housing regulation 10/2012 is the provision of sanctions for housing composition violations, including both administrative and financial sanctions. Examples of administrative sanctions include written warning, revocation of the housing incentive, revocation of the permit, and revocation of the business license. These administrative sanctions were not stipulated in the previous cross-subsidy regulation. The monetary sanctions in the new regulation include penalties up to approximately Rp. 5,000,000,000 or US$41,667 for houses and Rp. 20,000,000,000 or US$1,666,667 for apartments. However, the penalties failed to encourage developers to build more low-cost housing unit, as the monetary sanctions were poorly administered due to a lack of enforcement officers (Rukmana 2015).

5.5 Upgrading Housing Settlement Through the *Kampung Deret Program*

As noted above, the new *Housing and Settlement Areas Law 1/2011* stipulates that provincial and local governments have a greater level of responsibility and authority for housing provision than the central government. The *Kampung Deret* or *row kampung* program was the first housing program initiated by a local government in Indonesia. The program aimed to build low-rise apartments and improve the quality of living for low-income residents in Jakarta's *kampungs*. This program was funded by the Jakarta's development budget, known as APBD for its initials in Bahasa Indonesia. This section discusses how this program differed from the previous housing policies and identifies the main ingredients of the program that have had the greatest effects on the upgrading housing settlements for *kampung* dwellers in Jakarta.

5.5.1 Kampung *and the Failure of Low-Income Housing Markets*

Most kampungs in Jakarta and other Indonesian cities are considered slums. Tunas and Peresthu (2010, p. 315) posit that "in a country where low-cost housing programs are far from adequate, *kampung[s]* makes a substantial contribution towards accommodating the urban underclass." *Kampungs* in Jakarta house about 60–70% of Jakarta residents (Wilhelm 2011). The majority of houses in Jakarta's *kampungs* are substandard units built from makeshift materials.

Low-income housing markets in Indonesia are far beyond the reach of kampung residents in Jakarta and other Indonesian cities. Most kampung residents lack access to a financial system because they are not part of the formal work arrangements. They lack a credit history. A formal housing solution through neoliberal housing policies is not feasible for kampung residents in Jakarta.

However, supply constraints limit the private sector from participating in low-income housing provision (World Bank 2014). These include the unavailability of land; complex land acquisition, permitting, and servicing processes; constraints on development finance; and the rising cost of construction. The high cost of land in the inner city discourages the formal housing sector from providing housing for low-income residents in the inner city areas of Jakarta. The high cost of inner city land also pushes the formal housing sector to build low margin affordable housing units at the periphery areas of Jakarta.

A faculty member of the Architecture Department at the Bandung Institute of Technology reflected on the constraints of the housing delivery system by the private sector:

> The failure of housing provision for low-income residents by the private sector is due to land speculation, permits speculation, infrastructure speculation, and even mortgage lending speculation. Speculations and corruptions occurred in the national, provincial and local levels. (J. Siregar, personal communication, December 16, 2014)

Jakarta, the principal city of Indonesia, is experiencing rapid urbanization. Migration of people from rural areas to Jakarta makes accessing housing even more difficult. New residents crowd into existing housing units or resort to makeshift dwelling units (Monkkonen 2013).

5.5.2 Land Tenure

The three categories of land tenure in Indonesian *kampungs* are formal, semiformal and informal (Reerink and van Gelder 2010). *Kampung* dwellers with formal land tenure have a property title to their land acknowledged by *Law 5/1960 Basic Agrarian Law*, the primary Indonesian land law. Yet semiformal land tenure is still common in Indonesian *kampungs*. During the colonial period, kampung dwellers could apply their own traditional *adat* law to land, entitling them to semiformal and formal land tenure (Reerink and van Gelder 2010). Informal tenure in Indonesian *kampungs* is the result of dwellers occupying vacant land in Indonesian *kampungs* on which other have established private rights, or where the state owns the property rights. The major element of the informal housing sector in Indonesian cities consists of *kampung*s without formal land tenure. The informal housing sector in the *kampungs* has been noteworthy for allowing families to secure housing outside of the formal sector (Leaf 1994; Monkkonen 2013). However, most housing units in the *kampungs* are structurally unsafe and/or located in unhealthy and vulnerable areas such as river banks (Monkkonen 2013; Silver 2008).

The *Kampung Deret Program* aimed to improve the quality of informal and structurally unsafe housing. One of its primary requirements was the legality of land tenure. Dwellers of Jakarta's *kampungs* are required to show the evidence of formal or semiformal land tenure to be eligible for the program. In order to receive financial assistance, the quality of dwelling units must be deemed to be substandard. The Jakarta City administration will grant land titles to Jakarta's *kampung* dwellers with informal land tenure if they had occupied the same portion of the land for more than 20 years. Formalizing property rights in Jakarta's *kampungs* was one of the main ingredients of the *Kampung Deret Program* (Purnamasari 2013).

Despite these provisions, and the long-standing traditions of permitting various types of housing tenure in informal settlements, most of Jakarta's *kampung* dwellers live with informal land tenure. The *Kampung Deret Program* received significant support from Jakarta's *kampung* residents because the program offered them land titles. The program was implemented without a high level of household displacement. In many cases in the Global South, a high level of household displacement has been one of the disappointing features of upgrading housing settlements (Van der Linden 1994; van Horen 2000). The approach of *menata tanpa menggusur* (upgrading without displacement) has been key to the success of the program (J. Siregar, personal communication, August 4, 2017).

One of the key factors for terminating the *Kampung Deret Program* was the poor administration by the National Land Agency (*Badan Pertanahan Nasional* or BPN), particularly for the informal land tenure by most of Jakarta's *kampung* dwellers (Y. Supriatna, personal communication, August 1, 2017). The process of giving the *kampung* dwellers legal title to the land they occupy was manipulated and corrupted by the bureaucracy. The Jakarta City administration was able to give the kampung dwellers legal title to the lands they occupied in the first few cases of *Kampung Deret Program*, yet it failed to sustain the effort due to the complicated process of land titling. The *Kampung Deret Program* was finally discontinued because the Jakarta City administration was not able to identify *kampung* dwellers who occupied the land with legal land title.

A lawyer of the Jakarta Legal Aid Institute characterized the chronic problem of land titling in Indonesian cities:

> The *Law of 5/1960 Basic Agrarian Law* is poorly implemented. After more than 35 years since the primary Indonesian land law was introduced, there was only 44% of the land in Indonesia with legal title land. This is the root of the land problem in Indonesia since most Indonesians occupy the land without legal title land. The bureaucracy of the National Land Agency was complicated and corrupted. (A. F. Januardy, personal communications, August 14, 2017)

5.5.3 Funding and Beneficiaries

The Jakarta city administration, with the approval of the Jakarta City Council, allocated a total budget of US$17.83 million in the first year of the *Kampung Deret Program* (Jakarta Raya 2014). The Jakarta City administration identified 25 of Jakarta's overcrowded and chaotic *kampungs* as the target of the first year of the program. It offered a budget of up to Rp. 54 million (US$4500) for each housing unit, to be disbursed to a beneficiary of the program in three phases. The beneficiaries of the program did not need to pay any fees to the city administration. They were responsible only for rental costs and other living expenses for approximately 3 months while their housing was being upgraded or built (Djuwanto 2014). They were also responsible for overseeing construction. In some cases, the beneficiaries were asked to donate small parts of their lots for widening the neighborhood's alleys (Becak 2014).

The cash for housing assistance was based on the cost of the housing project—as much as Rp. 1.5 million/m^2. Where the program recipient's house was larger than 36 m^2 or the housing construction cost was more than Rp. 54 million; the beneficiary of the program was responsible for paying the remaining cost of the housing construction.

The existing law in Indonesia prohibits the use of state budget for land without a title. At the end of 2014, the Jakarta City Council discontinued the budget for the program because the Jakarta city government failed to identify *kampung* dwellers with legal title to the land they occupy.

5.5.4 Housing Development Process

The *Kampung Deret Program* aimed to build low-rise apartments and improve the quality of living for the poor residents in the Jakarta's overcrowded and unhealthy *kampungs*. The Jakarta city administration identified the location of the *Kampung Deret Program* that was planned as a residential area in Jakarta's Spatial Plan 2030. Jakarta's Housing and Building Office identified at least 392 *kampungs* that could be considered slums, yet many of them did not qualify for the *Kampung Deret Program* (The Jakarta Globe 2014). The city administration declined applications from the residents in the Pluit Dam area because it was part of the government's green areas in Jakarta's Spatial Plan 2030 (Purnamasari 2013). Similarly, the applications from the *kampung* residents of Bukit Duri were declined because the area was zoned as a green area in Jakarta's Spatial Plan 2030 (Aziza 2016).

The planning process of the *Kampung Deret Program* commenced with collaboration between neighborhood leaders and the city officials, who identified which residents of the selected neighborhoods met the requirements of the Program. Priority was given to residents who lived in detached semipermanent houses on flood-prone areas, unhealthy areas, or very densely populated areas. The Jakarta City

administration appointed and paid consultants as program facilitators. The consultants were assigned to assist the beneficiaries in every stage of the *Kampung Deret Program* and were asked to mediate the budget disbursement from the city officials to the program's beneficiaries. The city administration disbursed 40% of the budget in the first phase, another 40% in the second phase and the remainder in the last phase.

The consultants assisted the program's beneficiaries in meeting the requirements of each phase of the budget disbursement. They were also assigned to mediate the design and housing construction process and to work closely with the program beneficiaries. The program beneficiaries were responsible for finding and renting a temporary residence while their housing was being upgraded or built. The housing construction or upgrading process took about 3 months (Djuwanto 2014).

A faculty member of the Architecture Department at the University of Trisakti asserted that the housing construction in the *Kampung Deret Program* was efficient because the program used standardized and fabricated building materials, popularly known in Indonesia as *Rumah Instan Sederhana Sehat*, or "Simple Healthy Instant House" (P. Puspitasari, personal communications, August 2, 2017). The Simple Healthy Instant House, or RISHA, concept was developed by the Research and Development Center of the Indonesian Ministry of Public Works (Rahayu et al. 2016).

5.5.5 Changes in Social and Economic Conditions

The *Kampung Deret Program* replaced substandard, unsafe, and unhealthy housing units in Jakarta's *kampungs* with permanent housing units (Mursito 2014). A community unit head in Petogogan expressed his satisfaction with his newly upgraded house, saying: "the completion of the *Kampung Deret* was like a dream come true. We have dreamt of a decent and green neighborhood for a very long time" (Dewi 2014). The *Kampung Deret Program* in Petogogan, South Jakarta also built a public park, a children's playground, and toilets. Rahayu et al. (2016) reported that 80% of the program's beneficiaries in Petogogan were satisfied with their upgraded houses.

The beneficiaries of the *Kampung* Deret *Program* in Kapuk, West Jakarta also expressed their satisfaction with their improved *kampong*, labeling it a vast improvement from their previous *kampong*, which was prone to flooding every wet season from the nearby Angke River. After the completion of the *Kampung Deret Program*, the houses in Kapuk, West Jakarta were higher than the river so the areas would no longer be inundated in heavy rains (Becak 2014).

A senior urban planner in Jakarta argued that the *Kampung Deret Program* improved the beneficiaries' self-esteem. Safe, healthy, and decent houses also improved residents' productivity. Economic revitalization followed the physical improvement of the *Kampung Deret Program* (Y. Supriatna, personal communication, December 9, 2014).

5.6 Important Ingredients of Upgrading Housing Settlements for the Urban Poor

Jakarta's *kampung* dwellers supported the *Kampung Deret Program* because it improved the quality of their houses without relocating them to other areas. Indeed, upgrading without displacement was one of the key features of the program. As with many other in situ upgradings in the Global South (Choguill 1995; Gonzalez 2008; Huchzermeyer 2009), the *Kampung Deret Program* was a solution to the crisis of urban housing for the urban poor. In situ upgrading in the *Kampung Deret Program* also reduced disruption to social and economic networks of the urban poor.

With hindsight, land tenure legalization can be assessed as a suboptimal solution to upgrading housing settlement for Jakarta's *kampung* dwellers. Legalizing land is a complicated due to the corrupt bureaucracy in the National Land Agency. Giving *kampung* dwellers legal title to the land they occupy became an impediment for the sustainability of the *Kampung Deret Program*. It is not a legal land title, but rather the *perception* of security of tenure that is most important to the upgrading housing settlement for the urban poor (van Horen 2000).

The master plans of many urban areas in the Global South were developed only in areas with formal land tenure. Most informal settlements in urban areas in the Global South are not acknowledged by those master plans, including *kampungs* in Indonesian cities. Security of land tenure could have been given to Jakarta's *kampung* dwellers, but only at the discretion of Jakarta's spatial plan. Arguably, Jakarta's spatial plan needs to integrate Jakarta's *kampungs* into the formal and legal system (J. Siregar, personal communication, August 4, 2017). Once the land tenure of the *kampung* dwellers is recognized in planning documents, the need for dwellers to hold land titles will reduce, as has happened in informal settlements in many cities in the Global South (Angel 1983; van Horen 2000).

A combination of self-help housing and government subsidies has been an important ingredient of the *Kampung* Improvement Program. A community unit head in Kapuk, West Jakarta reported greater collaboration among his community members after the self-help housing process of the *Kampung Deret Program*. The strengthened collaboration among community members became an important asset for developing collaborative economic activities in his kampung (Becak 2014). A senior urban planner in Jakarta described the importance of self-help housing and government subsidies of the *Kampung Deret Program*:

> The *Kampung Deret Program* aims to provide a permanent housing structure through self-help housing for the residents of Jakarta's overcrowded and poor *kampungs*. Without the cash assistance from the *Kampung Deret Program*, the urban poor in Jakarta will not be able to improve their housing conditions due to their limited income. Jakarta's urban poor will remain living in temporary and semipermanent housing structures in Jakarta's overcrowded and chaotic *kampungs* without any housing assistance such as the *Kampung Deret Program*. (Y. Supriyatna, personal communication, December 9, 2014)

5.7 Observations

Indonesian formal housing policies, including self-help housing, public housing, and cross-subsidization, have not addressed the problem of providing housing for the urban poor. Most urban poor still live in substandard housing units in Indonesia's poor *kampungs*. Low-income housing markets in Indonesia are far beyond the reach of *kampung* dwellers in Indonesian cities. The *Kampung Deret Program* resulted from the implementation of the *Housing and Settlement Areas Law 1/2011* and the new *Fiscal Decentralization Law 32/20014*. Those two new laws enabled the Jakarta City administration to provide housing for the poorest residents.

The approach of *menata tanpa menggusur* (upgrading without displacement) was the key ingredient of the *Kampung Deret Program*. The Jakarta City administration needs to integrate Jakarta's *kampungs* into the formal and legal systems, providing the security of land tenure necessary for *kampung* residents. The security of land tenure is important for any revival of the *Kampung Deret Program*. This security is not always achieved by giving *kampung* dwellers legal title to the land they occupy.

The policy of upgrading housing settlements needs a broader development strategy to combat poverty and inequality (Gonzalez 2008). In order to be effective, the *Kampung Deret Program* or housing programs for the urban poor must be incorporated into a community development strategy that addresses employment, transportation, education, health services, and access to formal financial institutions.

References

Abrams, C. (1964). *Man's struggle for shelter in an urbanizing world*. Cambridge, MA: Massachusetts Institute of Technology.

AlSayyad, N., & Roy, A. (Eds.). (2003). *Urban informality: Transnational perspectives from the Middle East, Latin America, and South Asia*. New York: Lexington Books.

Angel, S. (1983). Land tenure for the urban poor. In S. Angel (Ed.), *Land for housing the poor* (pp. 22–26). Singapore: Select Books.

Anwar, D. F. (2005). The fall of Suharto: Understanding the politics of the global. In F. K. Wah & J. Ojendal (Eds.), *Southeast Asian responses to globalization: Restructuring governance and deepening democracy* (pp. 201–232). Singapore: NIAS Press.

Aziza, K. S. (2016, September 28). Ini alasan Ahok tak bangun Kampung Deret di Bukit Duri (This is the reason why Ahok did not build Kampung Deret in Bukit Duri. Kompas).

Becak, T. (2014). Kisah Sukses Kampung Deret Jokowi-Ahok. www.youtube.com/watch?v=hWTBKADc4p4. Accessed December 3, 2014.

Biderman, C., Smolka, M., & Sant'Anna, A. (2008). Urban housing informality: Does building and land use regulation matter? *Land Lines, 20*(3), 14–19.

BPS. (2014). Data Jumlah Rusunawa dan Perumnas yang Dibangun. www.bps.go.id. Accessed December 2, 2014.

BPS. (2015). *Population of Indonesia: Result of the 2015 intercensal population survey*. Jakarta: Badan Pusat Statistik.

Brueckner, J. K. (2013). Slums in developing countries: New evidence for Indonesia. *Journal of Housing Economics, 22,* 278–290.

Brueckner, J. K., & Selod, H. (2009). A theory of squatting and land-tenure formalization in developing countries. *American Economic Journal, 1*(1), 28–51.
Chiodelli, F., & Moroni, S. (2013). The complex nexus between informality and the law: Reconsidering unauthorized settlements in light of the concept of nomotropism. *Geoforum, 51,* 161–168.
Choguill, C. L. (1995). The future of planned urban development in the third world: New directions. In B. C. Aldrich & R. S. Sandhu (Eds.), *Housing the urban poor: Policy and practice in developing countries* (pp. 403–412). London: Zed Books.
Choguill, C. L., Franceys, R., & Cotton, A. (1993). Building community infrastructure in the 1990's: Progressive improvement. *Habitat International, 17*(4), 1–12.
Crane, R., Daniere, A., & Harwood, S. (1997). The contribution of environmental amenities to low-income housing: A comparative study of Bangkok and Jakarta. *Urban Studies, 34*(9), 1495–1500.
De Soto, H. (1989). *The other path*. New York: Harper & Row.
De Soto, H. (2000). *The mystery of capital: Why capitalism triumphs in the West and fails everywhere else*. Basic Civitas Books.
Dewi, S. W. (2014, April 4). First Kampung Deret inaugurated. *The Jakarta Post* (online).
Djuwanto. (2014). Kampung Deret Solusi Penataan Hunian Kumuh Jakarta. *Kiprah, 62,* 52–54.
Firman, T. (2003). Potential impacts of Indonesia's fiscal decentralization reform on urban and regional development: Towards a pattern of spatial disparity. *Space and Polity, 7*(3), 247–271.
Firman, T. (2008). In search of a governance institution model for Jakarta Metropolitan Area (JMA) under Indonesia's new decentralization policy: Old problem, new challenges. *Public Administration and Development, 28*(4), 1–11.
Gonzalez, C. (2008). Squatters, pirates, and entrepreneurs: Is informality the solution to the urban housing crisis? *University of Miami Inter-American Law Review, 40,* 239–259.
Heripoerwanto, E. D. (2012). Perencanaan Bantuan Stimulan Perumahan Swadaya (BSPS). www.academia.edu/5441998/Perencanaan_Bantuan_Stimulan_Perumahan_Swadaya_BSPS. Accessed December 12, 2014.
Huchzermeyer, M. (2009). The struggle for in situ upgrading of informal settlements: A reflection on cases in Gauteng. *Development Southern Africa, 26*(1), 59–73.
Jakarta Raya. (2014). Program Kampung Deret Sisakan Anggaran Rp. 15 Miliar. http://jakarta.bisnis.com/read/20140623/383/238187/proyek-kampung-deret-sisakan-anggaran-rp15-miliar. Accessed March 31, 2015.
Juliman, D., & Durrendon. (2006). The world's first slum upgrading programme. World Urban Forum III, Feature4/06, Vancouver.
Leaf, M. (1993). Land rights for residential development in Jakarta: The colonial roots of contemporary urban dualism. *International Journal of Urban and Regional Research, 17*(4), 477–491.
Leaf, M. (1994). Legal authority in an extralegal setting: The case of land rights in Jakarta, Indonesia. *Journal of Planning, Education and Research, 14*(1), 12–18.
Lee, M. (1996). The evolution of housing finance in Indonesia: Innovative responses to opportunities. *Habitat International, 20*(4), 583–594.
Mangin, W. (1967). Latin American squatter settlements: A problem and a solution. *Latin American Research Review, 2*(3), 65–98.
Minnery, J., Argo, T., Winarso, H. H. W., Hau, D., Veneracion, C., & Forbes, D. (2013). Slum upgrading and urban governance: Case studies in three Southeast Asian cities. *Habitat International, 39,* 162–169.
Mistro, R., & Hensher, R. D. (2009). Upgrading informal settlements in South Africa: Policy, rhetoric and what residents really value. *Housing Studies, 24*(3), 333–354.
Monkkonen, P. (2013). Urban land-use regulations and housing markets in developing countries: Evidence from Indonesia on the importance of enforcement. *Land Use Policy, 34,* 255–264.
Mukhija, V. (2001). Upgrading housing settlements in developing countries: The impact of existing physical conditions. *Cities, 18*(4), 213–222.
Mungkasa, O. (2013). Catatan Kritis tentang Hunian Berimbang. *HUD Magazine, 4,* 18–21.
Mursito, J. (2014). Kampung Deret: Solusi Penataan Hunian Kumuh Jakarta. *Kiprah, 62,* 52–54.

Pugh, C. (2001). The theory and practice of housing sector development for developing countries, 1950–99. *Housing Studies, 16*(4), 399–423.
Purnamasari, D. M. (2013, November 1). Jakarta kicks off tiered village project. *The Jakarta Globe* (online).
Rahayu, Y. O., Puspitasari, P., & Indartoyo. (2016). The concept of space inhabitation: "nearly adequate" (Case: Row house in Petogogan, South Jakarta). *International Journal on Livable Space, 1*(1), 29–38.
Reerink, G., & van Gelder, J. L. (2010). Land titling, perceived tenure security, and housing consolidation in the kampongs of Bandung, Indonesia. *Habitat International, 34*(1), 78–85.
Rowe, P. (1993). *Modernity and housing*. Cambridge, MA: MIT Press.
Rukmana, D. (2005). Empowerment and housing provision for urban poor. *Journal of Environmental, Cultural, Economic & Social Sustainability, 1*(1), 62–71.
Rukmana, D. (2015). The change and transformation of Indonesian spatial planning after Suharto's New Order Regime: The case of the Jakarta Metropolitan Area. *International Planning Studies, 20*(4), 350–370.
Sastrosasmita, S., & Nurul Amin, A. T. M. (1990). Housing needs of informal sector workers. *Habitat International, 14*(4), 75–88.
Silas, J. (1992). Government-community partnerships in kampong improvement program in Surabaya. *Environment and Urbanization, 4*(2), 33–41.
Silver, C. (2008). *Planning the megacity: Jakarta in the twentieth century*. New York: Routledge.
Siregar, J. M. (2012). Perumahan Swadaya: Tak Lelah Bermanuver. www.rumahuntukrakyat.blogspot.com. Accessed December 10, 2014.
Struyk, R. J., Hoffman, M. L., & Katsura, H. M. (1990). *The market for shelter in Indonesian Cities*. Washington, DC: The Urban Institute.
Sudarmo, S. P. (1997). Recent developments in Indonesian urban development strategy. In R. Burgess, M. Carmona, & T. Kolstee (Eds.), *The challenge of sustainable cities: Neoliberalism and urban strategies in developing countries* (pp. 228–235). London: Zed Books.
The Jakarta Globe. (2014, April 2). South Jakarta 'Tiered Kampung' project ready for residents this week. *The Jakarta Globe* (online).
Tunas, D., & Darmoyono, L. (2014). Indonesian housing development amidst socioeconomic transformation. In J. Doling & R. Ronald (Eds.), *Housing East Asia: Socioeconomic and demographic challenges* (pp. 91–115). Hampshire: Palgrave Macmillan.
Tunas, D., & Peresthu, A. (2010). The self-help housing in Indonesia: The only option for the poor? *Habitat International, 34,* 315–322.
Turner, J. (1968). Housing priorities, settlement patterns and urban development in modernising countries. *Journal of the American Institute of Planners, 34*(6), 354–363.
Turner, J. F. C. (1977). *Housing by people: Towards autonomy in building environments*. New York: Pantheon Books.
UN Habitat. (2003). *Slums of the world: the face of urban poverty in the new millennium?* Nairobi, Kenya: UN Habitat.
Van der Linden, J. J. (1994). Incremental servicing and housing: Where do we go from here? *Third World Planning Review, 16*(3), 224–229.
van Horen, B. (2000). Informal settlement upgrading: bridging the gap between the de facto and the de jure. *Journal of Planning Education and Research, 19,* 389–400.
Wassenberg, F. (2004). Large social housing estates: From stigma to demolition? *Journal of Housing and the Built Environment, 19,* 223–232.
Widoyoko, D. (2007). *Good governance and provision of affordable housing in DKI Jakarta, Indonesia*. Leicestershire: WEDC.
Wilhelm, M. (2011). The role of community resilience in adaptation to climate change: The urban poor in Jakarta, Indonesia. In K. Otto-Zimmermann (Ed.), *Resilient cities: Cities and adaptation to climate change* (pp. 45–54). New York: Springer.

Winarso, H. (2010). Urban dualism in the Jakarta Metropolitan Area. In A. Sorensen & J. Okata (Eds.), *Megacities: Urban form, governance and sustainability* (pp. 163–190). New York: Springer.

Winayanti, L., & Lang, H. (2004). Provision of urban services in an informal settlement: A case study of Kampung Penas Tanggul. *Jakarta, Habitat International, 28,* 41–65.

World Bank. (2014). *Indonesia a roadmap for housing policy reform*. Washington, DC: The World Bank.

Yuniati, V. (2013). *Inclusionary housing in Indonesia: The role of balanced residential ratio 1:3:6 in Makassar*. (Unpublished master's thesis). Erasmus University, Rotterdam.

Chapter 6
Comparing Informal Sector Engagement Across Pakistan's Largest Urban Centers: Lessons in State and Non-state Engagement from Karachi and Lahore

Faisal Shaheen

Abstract Pakistan's expanding urban informal sector (IS) continues to overwhelm the country's largest municipal centers. In the light of national policy failures, this study investigates inter-provincial differences in the political will and administrative capacity to engage the IS. The policy contexts of housing, labor, water and sanitation, and transportation—all service delivery—are compared for the cities of Lahore and Karachi to examine the relationship between state and non-state actors in engaging the IS. Cross-municipal data analysis and key informant interviews provide comparative evidence about policy and program outcomes of IS engagement in the two megacities. Evidence supports the current understanding that lower tiers of the state (i.e., municipal governments) are better placed than upper tiers of the state (national and provincial governments) to engage with the IS. The service delivery capability of large municipal corporations is constrained by policy formalism, mal-governance, interdepartmental conflict, and political interference linked to the interests of elite actors at the upper tiers of the state. Civil society engagement in informal settlements, especially in partnership with municipal actors, is the most successful form of service delivery. Moreover, evidence from low-cost, incremental, and "one window" service delivery solutions highlights the benefits of civil society–municipal government cooperation in holding upper tier administrators and ill-conceived policies in check. These research findings build on the critique of "top-down" policy development thinking by confirming that investment in basic service delivery at the municipal level will generate the highest returns in human development outcomes.

Keywords Community-led local government · Informal settlements South Asia · Urban management

F. Shaheen (✉)
Department of Politics and Public Administration, Ryerson University, Toronto, ON M5B 2K3, Canada
e-mail: fshaheen@ryerson.ca

B. Grant et al. (eds.), *Metropolitan Governance in Asia and the Pacific Rim*,
https://doi.org/10.1007/978-981-13-0206-0_6

6.1 Introduction

Solutions to the challenges of urban poverty in developing countries are often tied with political reforms and foreign assistance (Bano 2012; Bjørnskov 2010). Yet municipal capabilities continue to suffer neglect, as their ability to engage the urban poor hinges on the agendas of provincial and national administrations (Satterthwaite 2014). In the absence of resources, service delivery machinery is undermined by political, economic, and societal variables. Service delivery shortfalls inevitably affect the poor, who, excluded from basic services, coalesce in a socioeconomic and physical space known as the Informal Sector (IS). While this "unobserved economy" is not recognized in financial indicators or economic statistics, the urban IS contributes in many ways to the vitality of urban society.

The challenges that face the urban IS have been the subject of increased research within the development studies literature (Gerxhani 2004). Socioeconomic assessments and surveys of the street realities of "megacities"[1] across Asia, Latin America, and Africa reveal a sharp contrast between national "pro-poor" market-based policy designs and actual outcomes that impact the urban poor (Kalan 2014; Laquian et al. 2007). Municipalities are constrained by both external (colonial legacies, neocolonialism, urban sprawl) and internal (administrative culture, policy, capacity, and capability) factors in their aim of providing basic services equitably to all segments of urban society (Dasandi and Esteve 2017). Under the rubric of national "aid and development programs", foreign interventionist states have overlooked the complexity, context, and challenges faced by developing country municipalities. Developing country governments have also neglected to invest in the public sector, particularly municipalities (Smoke 2015), and they remain ill equipped to convert imported policies into sustainable service delivery mechanisms (Batley and Larbi 2004). As a result, the misalignment of the organizational culture and the mindset of civil servants continue to alienate the bureaucracy from the public at large (Seim and Søreide 2009; Subramaniam 1990). This has resulted in an artificial and "context-less" structure, splitting interactions between the government and the public and limiting engagement between the state and society (Haque 1996, 2013). Four broad challenges hinder engagement between the state and the IS across the developing world.

First, at the level of the market, the national government's neoliberal agenda has overwhelmed municipal services, polarizing elites from the impoverished (Bjørnskov 2010; Brockerff and Brennan 1998; Harvey 2007). National economic policies of open trade, tax cuts, and market liberalization have created a favorable context for capital within the formal economy. However, no social programs are in place to protect laborers, middle-income and vulnerable low-income groups (already excluded from economic benefits[2]) from the adverse and polarizing effects of market-centered growth and development (Babb 2005; Laquian 2005b; Rakodi 2002).

[1] Megacities are defined as urban centers with a population of over 10 million (Siddiqui 2004).

[2] When we refer to those outside of the business or formal economy, we do not assume a disconnection. In fact, many within the formal economy arguably depend upon inputs from service providers, goods, and services from the informal economy in order to operate (Davis 2006).

Second, the rapid expansion and industrialization of cities in developing countries have weakened, if not altogether neglected, links with rural peripheries (Tacoli 2007). The expansion and industrialization of "megacities" (Laquian 2005a) have altered the balance of urban/rural development and the labor market (Bhagat 2005).

Third, the urban poor face a constant threat of physical and economic insecurity. Market speculation leads to social dislocation, harassment, forced evictions, cycles of resettlement, and the ongoing denial of basic services (Duijsens 2010). The cycle is perpetuated by the government's active withdrawal from its responsibilities as the guarantor of equitable development (Winton 2004). Limited municipal staff are allocated to reactively maintaining law and order rather than proactively addressing the root cause of inequity, communal violence, and instability—namely deficient basic services (Moser 2006).

Fourth, municipal governments continue to experience institutional erosion. As pressure for services mounts on a complex web of inefficient processes, cases of bribery and malfeasance increase. This takes place in tandem with the inability of the state to deliver consistent public services and minimize the persistence of corruption, poverty, and macroeconomic mismanagement (Goldfinch et al. 2013; Tendler 1997). The crisis of leadership is perpetuated by appointments based on kinship and political loyalty rather than merit.

Against this challenging urban setting, most policy recommendations are centered on privatization and democratic reforms (Devas 2004; Laquian 2005a; McCarney and Stren 2003). However, evidence reveals that once such reforms are applied, control over transparency, accountability, and agenda mechanisms shifts toward elites (Cheema et al. 2005). Challenges facing the IS are thus left unresolved as services cater to higher income groups. Furthermore, operational frameworks are built on cost recovery rather than on equitable service delivery. In light of these realities, there is an urgent need to examine the context within which Pakistan's municipalities engage in, or indeed neglect, the IS and to uncover the constraints to more effective service delivery.

The research question of this chapter is: How do policy roles, capacity, and the attitude of the upper and lower tiers of the state (political leadership and administration) differ when engaging with Pakistan's urban IS? Furthermore, where does the potential lie for engaging the IS? The originality of this study is that it compares the grassroots experiences of state and non-state actors through a public administration lens. The research points to differences in role and attitude across state functionaries and their ability and commitment to empathize, understand, and engage with the IS. The study findings have direct implications for IS-directed policy design and institutional strengthening.

This chapter is composed of seven main parts. Section 6.2 provides a brief overview of the literature and discussions surrounding informality and informal settlements. Section 6.3 outlines the methodology and the specific research question. Section 6.4 draws from secondary research and outlines the landscape of institutional health across Karachi and Lahore. I specifically draw attention to the marginalized condition of service delivery departments and budgets at the lower tiers of the state in both Karachi and Lahore. Section 6.5 emphasizes the key findings from the primary

research and semi-structured interviews, namely that more resources are required to ensure that basic services are adequately supported on the ground. Section 6.6 provides some analysis and draws out key themes in terms of the role of both state and non-state actors. The concluding section consists of recommendations for urban policy development.

6.2 Theoretical Framework and Literature Review

Defining the IS has been the subject of much debate in the interdisciplinary policy literature (see, for instance, Wilson et al. 2006). As this study seeks to contribute to the means by which the IS can be engaged, this section concentrates on a few common themes which frame the IS, rather than discussing definitions in any detail. According to the World Bank, "informality" is a reflection of the mechanisms that exclude large segments of the citizenry from education, health care, and judiciary services, and also from economic opportunities through a segmented labor market and imperfections in other factor markets (Perry et al. 2007). Other institutions (country and multilateral) have characterized informality by low levels of participation in the social security system, low coverage of many social insurance schemes (especially among poor people), and firms that partially or completely evade tax, labor, and business regulations (ILO 2002). I use the term "informal sector" as framed by Wilson et al. (2006, p. 797) as "labor-intensive, low technology, low-paid, unrecorded and unregulated work, often completed by individuals or family groups." This draws from the ILO definition of the IS, which is centered on employment outside of the formal economy (ILO 2002). Most of the definitions in the literature are focused on work, production, and taxation and do not incorporate the state's responsibilities as a regulator or provider of services (Chen et al. 2004). In fact, there has been little research on service delivery engagement between public sector machinery and the IS, beyond work and production.[3]

Northern approaches to the IS take a theoretical position that the policy void left by public sector agencies and disconnections between bureaucracy and citizens will inevitably be filled by non-state actors (Devas 2004; Laquian et al. 2007; McCarney and Stren 2003). Consequently, research has tended to examine the impact of political reforms on increasing engagement between the political leadership and the public, while ignoring the condition of the "bureaucracy". Such an approach, in the case of Pakistan, ignores hierarchical state structures which bear the imprint of the British colonial occupation of India (Sengupta 2014). The re-creation of class structures and the polarization between national and local governments during colonial rule has had disastrous implications for service delivery capacity in large municipalities. For example, members of higher levels of the civil service are well respected and their positions at the federal and provincial levels are considered prestigious. However, lower level posts within the provincial (specifically those that engage the IS) and

[3]For a more detailed discussion of the various definitions, see Shaheen (2014).

municipal levels are often perceived as "punishment positions" and remain under-equipped and less developed in their capacity for service delivery (Siddiqui 2006).

The theoretical framework is informed by focused, documented studies on Lahore and Karachi (Siddiqui 2006) which outline the local context and dynamics that impact the IS. These studies reveal that the IS does not exist independently; rather, it experiences a range of sophisticated interactions with state and non-state actors. Evidence from Lahore and Karachi also indicates that stakeholders who benefit from the "economic space" (low-cost goods and services) generated by the IS also exploit the "social space" (the policy void inhabited by "land grabbers", "water mafia", and transportation operators) unclaimed by the IS. While the state has been complacent in engaging the IS, commentators such as Ali (2005) and Hasan (2006a) show that civil servants are key agents for formulating policies and implementing programs which engage with the IS. My research, as understood through the policy cycle, hypothesizes that policy failures, specifically government strategies to engage the urban IS, are the result of poor policy *formulation* rather than poor policy *implementation*. Evidence from this study may support approaches to policy engagement.

The study hypothesis is consistent with policy perspectives which appear across the literature. The most dominant and widely accepted perspectives tend to dismiss state structures in developing countries as corrupt, incapable, and disinterested in the IS. Any prospects for development, it is argued, hinge largely on increased involvement by the private and not-for-profit sectors. Many commentators have argued that bureaucrats are disconnected from the poor (Batley and Larbi 2004; Davey 1996; Laquian et al. 2007) and are beyond capacity development or reform to any productive degree. Recommendations from this perspective suggest that political reform requires an alternative approach (McCarney and Stren 2003), and that the modernization (read: privatization) of government is required to drive change and the equitable distribution of resources, decision-making, and service delivery to the poor.

Some of the Global South perspectives take a more critical position on the structural roots of the crisis. They argue that until the colonial legacy and impact on the administrative machinery (based on context-less structures with meaningless mandates) is reformed, there is no point in aiming for a sovereign development agenda (Haque 1996; Khan and Swapan 2013; Subramaniam 1990). Contemporary perspectives from this group, which treat bureaucracies as homogenous, also point to political devolution as holding out promise for more meaningful reform (Khan et al. 2007).

A third perspective contends that the control of urban management dynamics is mainly a consequence of elitist power structures and interests that have manipulated and exploited the socioeconomic playing field. What is required is deconcentration, the administrative decentralization of authority to enable decision-making at the local levels (World Bank 2014). This group argues that the social context is the result of a class war initiated by capitalism on the IS (Davis 2006). Civil society can play a role

given a proven on-the-ground record.[4] However, such an approach tends to rely on foreign-funded efforts (Binswanger and Nguyen 2005). In contrast, another approach insists on engaging front-line state actors as a critical element of success (Baqir 2009; Hasan 1997; Rehman 2000; Siddiqui 2001). It is at this service delivery–recipient interface, where we hope to obtain a better understanding of state-IS relationships.

6.3 Methodology

In order to assess the dynamics between municipalities and the IS, this study employed a multilayered approach to examine the history of interactions which have shaped the IS experience in Karachi and Lahore. A comparative portrait of both cities, derived from multiple sources, in provided in Table 6.1.

Table 6.1 reveals the population pressure on the budgets of Lahore and, especially, the much older and larger Karachi. While Karachi is responsible for a much larger contribution to Pakistan's GDP, its development budget is noticeably smaller than that of Lahore. Lahore benefits from the focused political attention of Punjab provincial authorities. In contrast, Sindh's rural heartlands divert financial support away from pressing concerns across urban Karachi (MHHDC 2014).

Table 6.1 Social and economic profiles of Karachi and Lahore

Profile Criteria	Karachi	Lahore
Population (2010)[a]	13.387 million	7.215 million
Area	3527 km^2	1772 km^2
GDP (2008[b]) GDP (2014[c])	US$78 billion (2008) US$113 billion (2014)	US$40.0 billion (2008) US$58.14 billion (2014)
Municipal Corporation Annual Budget (2017/2018)	27.145 billion Rupees[d]	2.4 billion Rupees[e]
Development Authority Annual Budget (2017/2018)	6.302 billion Rupees[f]	57.96 billion Rupees[g]

Sources [a]Government of Pakistan (2015), [b]PWC (2009), [c]Government of Pakistan (2015), [d]Mansoor (2017), [e]Government of Punjab Finance Department (2017), [f]Pakistan Observer (2017), [g]Staff Report (2017)

Note Differences in the municipal annual budget allocations reflect the different concentrations of power held by the development authorities in Punjab and Karachi. Furthermore, the Government of Punjab has recently concentrated all budgetary power at the provincial level and now decides on any allocations to the city and district levels

[4]The successes experienced by self-help and welfare organizations demonstrate the effectiveness of philanthropy in alleviating human suffering. However, as Baqir (2009) outlines, a distinction is required between such organizations and "contractor NGOs" that are driven by market forces in supporting the IS.

This study incorporated primary and secondary research from the housing and shelter, water and wastewater, and transportation contexts. I conducted key informant interviews with consultants, municipal actors, civil society actors, informal settlement representatives, and donors, and also examined reports from urban institutes in both cities and general periodicals and sector-specific studies from multilateral institutions. In addition, to assess the effectiveness and attitude of the different levels of government in Pakistan toward the urban IS, I conducted semi-structured interviews with key actors,[5] before referencing case study histories from both megacities.[6]

This study investigated two research questions "How do the policy roles, capacities, and attitudes of the upper and lower tiers of the state's national, provincial, and municipal bureaucracies differ when engaging Pakistan's urban IS? Furthermore, within the network of these actors, where does potential lie for sustainable solutions in terms of the recognition, rehabilitation, and development of the IS?" An analysis of the policy, program, and "street-level" interfaces in the above-mentioned contexts tested the following hypothesis:

> Policy failures, specifically government strategies to engage the urban IS, are the result of poor policy formulation rather than poor policy implementation.

For the purposes of this study, policy formulation and implementation involve different stakeholders *and* refer to different stages of the policy cycle. *Policy formulation* refers to political engagement and involvement in policy development, from the agenda-setting stage to the drafting of policies and the enacting of legislation. Stakeholders at this upper tier of the state include politicians, political parties, and senior levels of the bureaucracy. Actions at this "elite" level include political interventions in existing policies and demonstrating the political will in reforming and improving processes. *Policy implementation* refers to the actual service delivery, monitoring, and feedback mechanisms that emerge once policies are articulated. Actions by this "lower" level of actors include processes that support service delivery machinery, street-level actors, and administrators. Stakeholders at this lower tier include front-line service delivery agents, professionals, and technocrats within the municipalities and communities that are served.

As the research questions and hypothesis are concerned with the processes, dynamics, behaviors, levels of service delivery, and recognition of members of the IS, I examined several specific service delivery contexts. The Housing and Water/Sanitation contexts involve the state's provision of tenure to low-income housing and the municipal water authority's provision of water/sanitation connections to the IS, namely informal settlements (*katchi abadis*). The Labour Conditions context examines working conditions in the IS and efforts by the provincial and municipal authorities to address issues related to low wage levels and the oppressive practices of bonded labor. This context is important, as the IS's most significant contribution

[5]While interactions at the City District Government level were the main focus, I also examined provincial and federal interventions and their outcomes within urban society.

[6]The rationale for the methodology, and the study's limitations, are discussed in more detail in the original thesis (Shaheen 2009).

to the formal economy is its provision of flexible (and often vulnerable) low-wage labor. Finally, the transportation context was examined to assess the state's management of the infrastructure (roads) and governance (public transportation) required by the IS to travel to and from places of work. The social context of the findings is critical, indicating how the state can engage most equitably and effectively in systems and infrastructure that are of most value to the IS. Potential solutions to ensuring service delivery, entitlements to property, and recognition of rights are all context-dependent and involve a series of processes carried out by state and non-state actors. An examination of those processes within each context will inform our understanding of sustainable solutions to the recognition and rehabilitation of the urban IS.

The next section outlines the key features of Pakistan's IS and their social and economic contribution to Pakistan's municipal landscape. This is followed by a discussion of the research findings from the two municipal service delivery contexts in Sect. 6.5.

6.4 The Informal Sector in Pakistan

Pakistan's urban IS has suffered from neglect and marginalization since the nation's creation in 1947 as a result of a range of political, economic, and social factors. While the size and nature of the IS are difficult to determine with accuracy, commentators and practitioners indicate that anywhere from 35% to over 50% of Pakistan's population reside in informal settlements where access to basic services is limited (Government of Pakistan 2015; Hasan 2008; Siddiqui 2008). Low-income areas have been politically manipulated during periods of democratic and military rule, where party elites mobilize support for candidates by promising services in return for votes cast (Gazdar and Mallah 2013). Partial experiments with devolution have failed, due in part to the lack of resources to fund and expand service delivery (Ahmad and Talib 2013; Cheema and Mohmand 2007). Existing institutions have been marginalized by the political appointments of previous and subsequent rival administrations, leading to disjointed outreach policies and programs. Economically, Pakistan's urban centers have not received sufficient funds or policy attention due to pressing national concerns such as debt repayment and military spending (MHHDC 2014; ADB 2009).

A market-oriented, development-driven state uses the value chains of the IS to serve as buffers for periods of economic hardship, while simultaneously maintaining the competitive advantage of low wages (Williams and Shahid 2016). While state service machinery is weakened, macroeconomic variables (rising food prices, inflation, and reduced purchasing power) exert downward pressure on growing segments of the IS, which struggle for limited space and resources. The situation is worsened by the gradual withdrawal of state capacity and support for Pakistan's overwhelmed urban centers. In many contexts, nongovernment organizations, aiming to support the poor, have only exacerbated the situation by creating markets for priva-

tization, which have, in turn, skewed the distribution of services (Bano 2008). The outcome has been the continued concentration of wealth and services for urban elites (Khan 2008).

6.4.1 Upper Tier Engagement with the Informal Sector

As with other developing states, upper tiers of government in Pakistan retain the dominant role in urban policy development. The literature on the country's municipal governance is concerned largely with the experiences of Karachi and Lahore. In extending services to the IS, Pakistan's largest municipalities experience three broad challenges. First, the highly centralized federal control of resources acts as a detriment to local level service delivery (Cheema and Mohmand 2003, 2007). As local level bodies are unable to recoup the costs of capital, operations, and maintenance investments, they abdicate the role to the provincial government (Sayeed 1996). In turn, the province's capital-intensive and often unsustainable project focus ignores operations, maintenance costs, and ground realities within the large cities. This is exemplified by low-income housing policies, where provincial standards for building codes place units beyond the affordability of low-income groups. Similarly, imported mega projects, such as power projects, highway corridors, and gated communities for elites, have not been designed with the needs of the majority of urban citizens in mind (Hasan 2006b).

Second, variances in the collection of revenue have undermined any efforts toward establishing municipal self-sufficiency (Ellis 2007). For instance, provinces exhibit different methods of revenue collection, linked largely with commodity movements and resources. Federal negligence in harmonizing tariffs between provinces has been remedied by the recent establishment of provincial finance commissions (Ahmed and Lodhi 2008). However, gathering a consensus between a diverse range of procedural practices and contexts continues to be difficult (Ahmad and Wasti 2002). As a result, several uncoordinated, provincially controlled legacy[7] agencies fail to transfer adequate resources to appropriate municipal departments, which, in turn, contributes to the scarcity of resources, funding shortfalls, and the poor delivery of basic services (Hasan 2006b).

Third, the legal and institutional context of municipal–provincial relations is misaligned. While municipal departments are assigned legislative responsibility for some services, the actual resources are allocated to others. For example, under provincial legislation in Punjab [*The Punjab Local Government Ordinance, 2007* (Ordinance 13)], local governments are legislatively responsible for link roads, intra-urban roads, street lighting, solid waste management, fire, parks, and playgrounds. Local governments are also legislatively responsible for curative health, land development,

[7]Legacy agencies were established by previous administrations only to be marginalized by successors, reducing their functionality. Such agencies and institutions continue to staff personnel, but do not serve any purpose. Khan (1996) laments this in his autobiography.

primary education, preventative health, farm-to-market roads, and water supply, drainage, and sewage. However, the actual allocations of resources are assigned to the province. The disconnection between the roles and responsibilities of various agencies has been problematic for large municipalities and has hindered service delivery (Ahmad and Anjum 2012; Government of Pakistan 2015; Hanif 1996). Similarly, the lack of fund transfers from the provinces to the local governments has left the latter to deal with deficits, a feature which is endemic to tax collection in Pakistan (AERC 1990; Ahmad et al. 2015). These structural issues constrain municipalities' ability to provide basic services, and municipalities wishing to engage the IS face a number of policy- and context-specific challenges.

6.4.2 Lower Tier Engagement of the Informal Sector

Municipal service delivery machinery has also struggled with social, political, and economic forces at the local level. Urban commentators have pointed to the absence of such variables from institutions' urban development and service delivery research agendas. Where urban issues and municipal government converge, analysts fall short of proposing organizational strategies and/or practical steps to devolve power efficiently (Reza 2003). Some of the more relevant suggestions have involved decentralization in a way that loosens the hold of the central government and increases autonomy for provincial and municipal actors, while ensuring effective monitoring mechanisms. In the case of Pakistan, this is highly contested, as we discuss shortly (Ahmad et al. 2015). Urban researchers have long argued that increased interaction with citizens and civil society will translate into more rapid responses to community needs and more relevant program design (see, for example, MHHDC 2014). A failure to do so will result in the expansion of the existing policy void and the activity of rent-seeking actors, such as organized crime.

Improving equitable municipal service delivery machinery in Pakistan's larger cities is hampered a myriad of stakeholders with conflicting interests. Local political actors (the elected officials), exploiting the weaknesses of a fragmented system,[8] use project-based solutions to alleviate poverty in order to garner voter support (Hasnain 2008). Local administrative actors (the bureaucracy) benefit from maintaining the status quo. Private sector actors celebrate the ample supply of IS labor which floods urban labor markets, the result of liberalizing trade and markets, as already discussed (i.e., Export Processing Zones and industrial restructuring). By contrast, civil society advocates lobby for increased social rehabilitation, development, and humanitarian relief, sometimes facilitated by intensive funding from external sources (welfare and contract-based NGO models). The result has been an impermanent and often

[8]For example, most recently the Benazir Income Support Program has been proposed to target the poorest of the poor. However, the program is to be managed by senate offices rather than existing machinery that already distributes funds to the marginalized and poor (Dawn Newspaper Group 2014). This is an example of politicians marginalizing existing structures in favor of building their own political credentials or legacies.

temperamental "donor-driven development agenda" which has further complicated the shape of public administrative capacity, by excluding service delivery channels (Daechsel 2011, p. x). Consequently, a range of opposing actors divert funds away from service delivery by the public sector and increase the challenges of extending such services to all urban citizens.

6.5 Secondary Research Findings

The secondary research findings, emanating from document review and analysis of various state structures engaged in service delivery (Shaheen 2009), provide a point from which to examine and analyze the roles of upper and lower tier state and non-state actors in more detail. A variety of actors make up the state landscape of the two megacities.

6.5.1 Karachi's Institutional Landscape

Karachi ranks among the world's largest mega cities (MHHDC 2014) and has been the subject of urban (MHHDC 2014) and community-based development research across several disciplines (see, for instance, Hasan 2010). Its growth rate continues to surge (MHHDC 2014) in the absence of any small/medium-sized towns/cities which might otherwise alleviate the pressures of industrialization and urbanization. Karachi's population base has steadily diversified along ethnic and sectarian lines (Hasan 2006b). Both the numbers and the resulting tensions have been exacerbated by rural-to-urban migration (Hasan 2006b). As the municipality's carrying capacity buckles under the increasing demands of service delivery, weak governance, and institutional frameworks are bypassed as recipients are prioritized according to power and influence (Rafi et al. 2012). The resulting scarcity of services, perpetuated by a polarized urban governance regime, contributes to fragile relationships among antagonistic communities, where disagreements are marked by violent conflicts between rival groups.

Several studies of Karachi's governance crisis have alluded to the disconnections between federal agencies, provincial authorities, municipal agencies, and informal settlements. Urban research has long pointed to gaps between the province's resource allocations and the municipality's needs (Ahmed 2008; Hasan 1999). Historically, the poor quality of service has been attributed to lack of coordination between municipal and provincial entities in their accountability to higher tiers of government (Hasan 1999). For example, 14 largely uncoordinated government agencies and housing authorities in Karachi exert some form of control over land distribution (Hasan 1998, 2006b). Similarly, while executive municipal officers in Karachi are required to stand for election (*Sindh Local Government Ordinance 2013*), provincially driven appointments have reduced accountability to citizens (ICG 2017). Capital-intensive

projects are managed by the province while underfunded operations and maintenance responsibilities are left to under-resourced municipal departments (Siddiqui 2006). The result of these disconnections is that as service delivery machinery weakens, provinces and federal governments intervene by providing service delivery on a project-by-project basis (Hasan 2002a, b). Project plans, however, continue to be disconnected from day-to-day operations.

The diverse range of often conflicting interests within the province of Sindh contributes to the fragmented nature and ineffectiveness of Karachi-focused policy. The growth in power of interest groups such as the Sindhi nationalists, the Muttahida Qaumi Movement (MQM, representing the North Indian migrants), politicians representing the landlords of rural Sindh, the Awami National Party (ANP, representing Pakhtun frontier migrants), and sectarian groups (Sunni/Shiite) all exacerbate urban instability (Anwar 2012; Siddiqui 2005). These groups actively promote representatives to local councils, simply to assert claims over the city (service delivery machinery) at the expense of existing administrative processes. Violence as a result of intergroup conflict is all too common and has led to a paralyzed policy environment (Khan 2007). As federally funded projects eclipse urban planning, Karachi's administrative structure grows increasingly vulnerable.

Karachi's municipal government (referred to as the City District Government or Karachi Municipal Corporation) is home to a number of similarly mandated agencies, which are largely uncoordinated (Anwar 2012; Siddiqui 2006). A legacy of federal, provincial, and city governments have invested heavily in Karachi's development, with project-based loans (again, largely uncoordinated) tied to international financial institutions. According to some estimates, the World Bank, Asia Development Bank (ADB), and the Japanese International Cooperation Agency (JICA) (water, sewage, traffic and transport, and environment) have supplied loan packages in excess of US$654 million for urban development (ADB 2005). Numerous studies have underlined the failure of these packages due to marginalization and non-sustainability (see, for example, Gorson et al. 2003). Furthermore, the resulting debt, paralyzing conditionalities and the lack of coordination with city master plans have stymied development efforts across the municipality (Daechsel 2011), and the consequent marginalization of service delivery has led to a "policy and program void" (Hussain and Shelley 2016). The result has been the proliferation of community-based organizations struggling to provide a minimum level of basic services to the poor. The vast number of such organizations is a testament to the municipality's limited ability to address the needs of the poorest of the poor. These problems are compounded by similarly uncoordinated efforts at the provincial and federal levels.

The provincial government of Sindh is home to a number of urban-facing ministries, which also suffer from conflicting mandates and disconnections with municipal works. Many of the urban-facing ministries (Industries and Commerce, Planning and Development, Revenue and Relief) have historically been overly concerned with industrial relations (Naseemullah and Arnold 2015). Other city-specific offices are reduced to low-profile portfolios that are largely underfunded, such as the Ministry of Local Government, Katchi Abadis and Special Development (MOLGKASD; Siddiqui 2006). There is historical evidence of successful agency operation,

such as the Sindh Katchi Abadi Authority (SKAA), nested within the MOLGKASD (Ismail 2004). Federal agencies own significant tracts of land in Karachi but work independently of local governments and, similar to the provincial government, focus their resources on development projects (MHHDC 2014; ADB 2009). This approach of bypassing provincial offices and capacities has led to friction between local and provincial governments (Hasan 2008). For example, while the province has introduced new development projects, such as the Lyari Expressway through the Karachi Development Authority, to cater to a specific segment of people (Hasan 2006b), local government is left with minimal funds for maintaining existing infrastructure to service the greater society (e.g., local bus routes, transit authorities, and road management). Rather than mediate between the two levels of government and align their mandates, the federal government formulates economic policies proactively while mandating social policies reactively (Bokhari 2017, September 25). Hence, the province with weak and poorly coordinated legacy agencies continues to be at odds with a municipal government whose autonomous agencies are still unsure of their jurisdictional boundaries.

In the midst of these intergovernmental challenges, social entrepreneurship from key actors concerned with service devolution has led to significant improvements in service delivery. For instance, the province's urban housing department, the Sindh Katchi Abadi Authority (SKAA), witnessed dramatic service delivery capability changes once leadership recognized the value of directly engaging informal settlements (Zaidi 2001). Over time, the SKAA developed an independent, community-based organization-driven investment vehicle (SAIBAAN). Another NGO, the Urban Resource Centre, has also served as a forum for state and non-state actors to engage on a range of urban issues, and has been replicated in Punjab and other Asian cities (Hasan 2010). Arguably, the formation of informal networks between front-line bureaucrats and community-based organizations at such gatherings is a testament to the success and persistence of Karachi's urban civil and civic society, in the midst of neglect from federal and provincial governments.

The preceding overview of Karachi's institutional landscape reveals its vulnerability to political interference, given disconnections between municipal, provincial, and federal governments. The resulting politicization of competing for tribal, ethnic, and sectarian interests undermines the possibility of sustaining service delivery. As the province refuses to acknowledge its responsibilities to the megacity, the autonomous district government of Karachi continues to engage the federal government and donor community for project support for survival. CBO efforts to extend service from the municipality to the IS struggle in isolation.

6.5.2 Lahore's Institutional Landscape

Lahore is also among the region's larger mega cities (Siddiqui 2006), but it has received less coverage than Karachi in the literature. This is partially because of the small and medium-sized city strategy that has been implemented in the province of

Punjab. The highly populated province has 35 district governments, whose municipal infrastructure is funded through provincial support. Projects such as the Faisalabad Area Upgrade Project (FAUP) have allowed medium-sized municipalities across the agriculturally rich province to keep pace with population and economic growth (Ghalib et al. 2017).[9] This has reduced population pressure on the province's largest city, Lahore (Zaidi 2008). Punjab's urban context is underpinned by a network of agricultural cities, diverse land holdings, and the ethnic homogeneity of its citizens. Provincial institutions reflect these economic priorities in their emphasis on agriculture-based industrialization.

These ideas guide pro-poor municipal policy in Punjab, which is intertwined with the sense of balanced industrial development based on agriculture (food and textiles). A strong industrialist class has emerged from investments in textiles and agriculture, and it is proactive in supporting and maintaining a diverse rural base within the province (Kochanek and Weiss 1991). In turn, the ADB has matched Punjab's institutional goals by dedicating funds towards the province's resource management and institutional development efforts (ADB 2003). Similarly, the 2005 Punjab Financial Corporation (PFC) grant system empowers districts to apply for project funding as infrastructure needs emerge. Key projects include Katchi Abadi (informal settlement) upgrades across Lahore, the Sialkot–Lahore Motorway, and Lahore Mass Transit (Staff Reporter 2011, July 20). However, audits of such efforts have led donors such as the World Bank to recommend enhanced provincial auditing, district budget reporting, and increased performance management of the districts to increase provincial support. The deep pockets of the provincial government have perhaps masked inefficiencies in project delivery (World Bank 2006a). Nevertheless, the province has responded through a number of policies, which in turn have managed to reduce urban pressure by supporting agricultural and industrial development in rural areas and smaller cities (Urban Unit 2016).

The interests found within Punjab and, to a greater extent, Lahore are relatively ethnically homogenous and balanced between urban and rural areas. The development of medium-sized cities (Faisalabad, Sialkot, Multan, and Rawalpindi) has also alleviated the pressures of urbanization on Lahore (Government of Pakistan 2015). In a shift away from one-time projects, donors are now focusing more on facilitating institutional reform (such as the Punjab Cities Governance Improvement Project) and urban development (Government of Pakistan 2015). Over half of the ADB's support to the Punjab Resource Management Program (PRMP, housed within the Planning and Development Ministry), a total of US$500 million from 1998 to 2003, was directed toward decentralization mechanisms, linking rural roads, and urban development (ADB 2003). The Punjab Government has consistently transferred at least 85% of its Rs. 150 billion development budgets (increasing annually by 10%) to district governments (Government of Punjab 2006). This is significant, as while the Punjab Government's allocation to urban development has increased by 200%

[9]Punjab P&D Urban Unit staff members have mentioned in interviews the advanced position of Faisalabad's institutions as a result of professional development and capacity building—leading to growth from within.

over the past year, it is still the lowest allocation within its infrastructure budget and exhibits the lowest amounts of percentage utilized (Government of Pakistan 2015). Given the political will that is apparent from urban-focused budgets, donors appear to be interested in freeing up the bottlenecks to urban development through assisting with institutional reforms (ADB 2004b; Government of Punjab 2013).

The Government of Punjab and, to a lesser extent, the City District Government of Lahore (CDGL) embodies a range of programs that support urban development programs and municipal agencies charged with service delivery. However, the province's stronghold on urban development projects often diverts the city's operations and maintenance responsibilities and budget requirements (Daechsel 2011). In turn, little remains for other districts across the province (Rizwan 2011). This is an issue to which IS advocates within civil society are increasingly drawing attention (OPP 2008).

The Government of Punjab, like its counterpart in Sindh, is home to a number of urban-facing ministries, which suffer from overlap and a donor dependency that result in municipal departmental neglect (Siddiqui 2006). Nine autonomous, externally funded special agencies address provincial development issues. The inwardly focused ADB-funded Punjab Resource Management Program (PRMP) has in the past aimed to implement institutional reform, civil service training, and professional development (ADB 2003; Government of Punjab 2004). However, how this initiative will coordinate the 29 autonomous operating agencies remains to be seen, beyond techniques such as job rotation (Cyan et al. 2017). In total, 41 operating departments deliver services which affect urban areas (Government of Punjab 2004). While a number of provincial agencies exist to support social and welfare needs (for example, 'Housing and Urban Development' and 'Labour and Human Resources'), they target wealthier homeowner services and support policy development (Local Government and Community Development) rather than front-line operations. The most relevant provincial ministry is the Planning and Development Department, which coordinates the majority of large-infrastructure, donor-development projects within the province. The "Urban Unit" of the Ministry of Planning and Development (P&D) engages municipal capacity building needs across all sectors. So while policy exists to resuscitate municipal departments and service delivery machinery, its resources and extent are narrowly defined, relative to the plethora of donor activity currently taking place within the provincial halls of government (WB 2006b).

Despite the well-funded provincial development efforts, civil society actors emphasize that a growing segment of the IS are beyond the reach of the government, and the involvement of Community-Based Organizations (CBOs) is required for community development (OPP 2008). Lahore's CBOs confirm that the City District Government of Lahore (CDGL) is not equipped to manage the needs of day-to-day operations or service delivery to the IS (MUAWIN and CDGL management interview 2010). The "self-help" CBOs originating in Sindh are increasingly taking root in Punjab. Organizations such as MUAWIN deal with sanitation, social housing (*Khuda Ki Basti or "God's House"*), and legal advocacy for the poor (Foundation for Law and Governance). These self-help organizations are drawing municipal attention for the need to engage the IS.

The preceding overview of Lahore reveals its leading role among its municipal counterparts in dealing with the province. The relatively mature provincial institutional setting illustrates that Punjab is more aware of municipal challenges and, as a result, experiences more evenly disseminated pressures from rural–urban disparities. Donor support for programs aimed at institutional reform reflects the commitments of provincial stakeholders to allocate resources for urban development (WB 2006b). However, Punjab's expansive urban portfolios (LDA) and its commitment to capital projects risk neglecting the operations and maintenance needs of the City District Government service delivery.[10] As both of these tiers of government vie for space, funding, and legitimacy, those in need of outreach and support are unable to avail themselves of services and are, therefore, beyond the scope of CBO assistance (Alvi 1997; Daechsel 2011).

Across both Karachi and Lahore, the dominant forces that influence municipal service delivery clearly originate from the upper tiers of the state. The IS is marginalized by the pervasive scarcity of support for basic services, unpredictable support, and politicized development. This, in turn, is reflected by disparities in service provision across sectarian and ethnic lines (Hasan 2006b). It is understandable that the quality of service delivery at the municipal level has struggled in light of institutional constraints (Wignaraja 2005). The primary evidence from the study facilitates a deeper understanding of the actors occupying these institutions.

6.6 Primary Research Findings

Despite the constraints placed by upper tier state actors (as well as donors and those in the private sector) on municipal service delivery, evidence reveals the proactive role played by civil society in engaging the IS and other municipal actors in the process. Interviews with key informant interviews generated a range of perspectives, experiences, and insights and suggested policy directions (Table 6.2).

Findings from the interviews can be summarized under eight main points. First, interviewees demonstrated a broad knowledge of the IS. They all spoke of their engagement and support of the IS in policy and advocacy-related activities. Second, when asked about constraints to the engagement of the IS, their experiences and

Table 6.2 Key informant interviews

Date	Number	Positions
2010 (*Lahore*)	12	4 civil society, 4 municipal, 4 donor
2010 (*Karachi*)	14	5 civil society, 4 municipal, 3 donor, 2 elected officials

Source Author compilation from on-site interviews conducted in 2010 (Shaheen 2014)

[10]While the capital project-oriented LDA is operated and maintained by the province of Punjab, the CDGL is the actual municipal government, which is responsible for operations and maintenance.

perspectives were consistent with the secondary evidence outlined above, in that elected officials and elite bureaucrats were disinterested in front-line services. For instance:

> Government policies are ineffective as they treat rich and the poor the same. Most policies are elitist and few programs actually deliver. (Karachi CBO actor)

Respondents' solutions to engaging and developing the IS comprised providing basic services (housing, water/sanitation, transportation) and ensuring that basic standards of employment and labor rights for members of the IS.

Third, all respondents believe that the potential for effective implementation rests with the lower tiers of government, where the administrative aspects of policies are implemented. Thus:

> Government policies have mixed results, but more resources are needed at the municipal level. (Karachi KMC bureaucrat)

For example, respondents advocated respecting the rule of law, standardizing processes, de-politicizing procedures, and adopting sustainable low-cost solutions. Respondents also suggested that these solutions be managed more transparently through an accountable and documented front-line officer—civil society engagement.

> Government programs are limited due to corruption and lack of will. For example, while a national sanitation policy has been developed … provinces do not follow with implementation or monitoring. In the absence of support, municipal governments must realize they can't deliver to the IS and need assistance from civil society. (Karachi municipal bureaucrat)

Fourth, community-centered service-delivery processes are seen as the most successful, because civil society and civic service actors continue to engage and lobby for IS-related concerns. Secondary research findings and key informant interviews made several specific recommendations in this regard.

Fifth, the "component sharing model" is successful in the policy area of Water/Sanitation. In this model, a CBO (with the technical help of an NGO) takes ownership of the internal laneway water and sanitation connections, while the municipality manages the external connections:

> Government programs are limited, as they don't accept ground realities and policies are based on first-world solutions. Where CBOs engage the line agencies, service delivery has been made to work. (Karachi CBO actor)

Sixth, in the policy area of Housing and Shelter, several interviewees noted the success of "incremental housing", where a CBO assumes management responsibility for publicly owned land to be allotted (through a public-sector or not-for-profit agency) for the settlement and gradual construction of homes for the poor. While land speculators offer public land to the market, focused social housing schemes ensure that migrants and their families, or the homeless, are able by sheer presence to occupy a small unit and gradually work to build its walls, roof, and utilities. For instance:

> Government needs to deal with people who can live on the land. Put people before the infrastructure. In the plans, they put the infrastructure in first which leads to all the complications. Need to empower and monitor the lower level staff. Ensure that processes are followed and not politicized and no line jumping. (Karachi NGO actor)

Seventh, across the transportation landscape, the continued failure of ad hoc private schemes has underscored the need for shared responsibilities of infrastructure and system monitoring. There is an urgent need for a transportation system that is publicly run and managed. Small pilot projects of publicly operated transit and community-maintained infrastructure have met with limited success. The current system, privately run, ad hoc, and rife with corruption, requires better governance:

> Pay the lower level bureaucrats a little more and they won't take bribes as they are secure. Public servants need to be given jobs based on merit, not by political affiliation. Similarly, municipal offices should be autonomous from the province and the federal levels of government. Reduce over-staffing and downsize resources specifically at the provincial level. Government needs to effectively regulate sectors - specifically with transportation … if they don't problems will continue as now, there is no regulation of ticket prices, seating arrangements, safety and quality of trips or organization, clearly a need exists for government role to invest in circular railway, good shelters, etc. (Karachi bureaucrat)

Eighth, the labor sector faces challenges in countering the powerful interests of industrialists who violate labor rights across a range of export-oriented industries. However, voluntary groups of citizens have been successful in monitoring and reporting bonded labor and labor rights violations:

> Government policies are too high level with disconnects between all levels of government implementation. In labor - where inspection required, not enough incentive or pay to justify the adverse environment. There needs to be more engagement between local communities, the informal sector and industry. (Karachi CBO actor)

6.7 Analysis

Findings from the key informant interviews and analysis of institutional data reveal insights into IS engagement in the two megacities, and increase our understanding of the roles played by different state actors in policy development and implementation. The findings can be grouped into three themes.

6.7.1 Upper Tier Neglect of the Informal Sector

The first theme that emerged from the research is that the upper tiers of government are ineffective at engaging the IS. The evidence supports the widely held notion within civil society that policies developed at the national level have failed to address the needs of the poorer segments of society and the IS. The two megacities examined exhibit three common behavior patterns.

First, while subsequent federal policies and legislative items have been enacted pertaining to all three sectors (municipal, provincial, and federal), the suitability, appropriateness, and enforcement of the policies and municipal governments' understanding of IS realities have not expanded (beyond their colonial origins), leaving marginalized segments of the IS disengaged. Furthermore, there has been little monitoring or resource support from upper tiers.

Second, political change has resulted only in incoming party leaders adding to the plethora of policy documents and legislation. Few initiatives have attempted to address existing governance and enforcement issues and seriously engage in institutional strengthening with the needs of the IS in mind. The tendency of political actors to ignore the need for deep policy and program reform, and instead simply create new agencies, reflects the disconnection and self-serving reality that plagues the higher tiers of the state. Such behavior is not surprising, as politicians largely utilize the electoral process as a means of obtaining votes in exchange for the provision of basic services. Unfortunately, this is accepted as normal by the IS, who, against an urban landscape of social and political unrest, have no recourse in light of their lack of representation.

Third, the simultaneous complication is that higher levels of government focus on large projects that are unsustainable, donor driven, and foreign designed. Most of these mega project solutions (Treatment Plants, Light Rail Transit) are beyond the affordability of society and threaten the already precarious physical space and dwellings of the IS (Ercelan 2005). The continuous promotion of these projects also suggests that upper-tier leaders are also economic beneficiaries of policy inaction and capital outlays. *Katchi Abadis* of the IS, for example, are a subset of the construction context. As economic and political conditions influence how much housing material is available, the demarcation lines of the low-income housing segment become vague. Density levels in and around *Katchi Abadis* quickly impact land values, resulting in the eviction of slum communities to make way for formal development and even social housing projects. The failure of state housing initiatives is a testament to the cities' dependence on capitalist modes of production, which maintain poverty while benefiting capitalists within industry and government. The *Katchi Abadi* phenomenon cannot be separated from the economic conditions surrounding it and poverty must be addressed first (Alvi 1997; Kalan 2014; Jonakin 2006), which translates into a policy shift away from large development projects to those that are more sustainable, engagement oriented, and municipally driven.

6.7.2 Intergovernmental Disconnections and Neglected Alternatives

While the research findings reveal disconnections with on-the-ground realities, more importantly, they reveal a series of shortcomings and misalignments with implementation at the provincial level. In the past, this level has acted as both monitor and

implementer, which has marginalized their purpose and duplicated agency efforts. At the local level, provincial bodies are misaligned with the management, support, and coordination of municipal offices. The provincial-level shortcomings are manifested in two main areas.

First, the failure of the Local Governance Ordinance (Qasim 2006) to outline the provincial–municipal working relationship has led to mismanagement. A lack of coordinated (provincial–municipal) planning, service support, and ground-level engagement persists, despite the presence of municipal offices in marginalized communities. The result is duplication, institutional overlap, and inconsistent support for sustainable urban development. Furthermore, as in the case of transportation and water/sanitation infrastructure, provincial levels of government interfere in municipal operations by politicizing operations or failing to adequately provide resources. Robust provincial support (professional development) for municipal offices is required to expand the reach of basic urban services. At present, support is captured through patronage and favoritism by the elites, leaving the IS to fend for themselves.

Second, in terms of operations and maintenance, the absence of adequate, sustained, and standardized budget and resources from provincial levels leave municipal service providers underfunded and their routine practices and procedures inconsistent. Donor studies have illustrated the merits of devolution and deconcentration in facilitating effective management and improved service delivery on the ground (ADB 2004a). However, those studies insist that cost recovery must be from generating revenue, derived from the political echelons and broad public engagement rather than through the technical assessment of productivity within service delivery units and accountability to community-based organizations (ADB 2004b). This is particularly alarming, as risk-averse consultants push for increased private sector involvement to avoid burdening the public sector. Our findings indicate the opposite, where there is all the more reason to bring transportation services back into the public realm and build up the capacity of the public sector as a manager and authority for the sector. The lack of provincial support restricts the municipalities' ability to effectively engage and service the public.

6.7.3 Community-Led Development

Finally, the lack of coordination among front-line departments—due to multiple agendas and absence of leadership—pulls mandates in opposite directions. In the midst of this policy void from upper tier state actors, CBOs have pushed municipal governments to engage the IS. In the absence of well-funded policies and programs, the CBO/NGO-facilitated engagement of the IS demonstrates some awareness by municipal stakeholders of the realities of the IS. This level of engagement is important, as sustainable solutions to service delivery reside here.

First, analysis at this level demonstrates that IS program development has gathered momentum through the engagement of front-line management. This is

illustrated by the emergence of NGOs and CBOs as facilitators of component-sharing and incremental housing models that increase municipal engagement. It is important to note that these models involve procedural reforms to existing state interactions with the IS. The majority of survey and case studies have not emphasized a strong role for political leadership, but rather indicate persistent engagement with lower tier officers and municipal bureaucrats. This illustrates that persistent CBO and NGO lobbying successfully improves service delivery or, at the least, establishes pilot projects that recognize the existing problems. On several occasions, NGOs and CBOs have shown that community-developed solutions are far more cost-effective, thereby gaining more confidence of municipal agencies in the feasibility of low-cost solutions (Pervaiz et al. 2008). Evidence from more recent NGO and CBO reports indicate communities are demanding increased support beyond infrastructure (housing, water/sanitation) to other areas of engagement (employment, training, education, disaster relief), following completion of initial housing/water/sanitation project work (see, for example, OPP 2008).

Second, with regard to other more complex contexts such as transportation, municipal, and provincial levels of government are de facto responsible for delivering key services. The failure of the transportation system following the state's withdrawal from the sector and the influx of private sector actors (largely criminal elements—see Hasan 2015) necessitates the return of the state as the lead stakeholder. For example, the closing of Karachi's Circular Railway (Hasan 2006b) has been accompanied by increased fares in a dangerous and chaotic system of travel, both within and to and from Karachi. Violence in the city has been accompanied by the burning of buses, and road accidents have become alarmingly common (Ismail 2004). Core public transportation services need to be restarted in major arteries in both Lahore (Bus Rapid Transit) and Karachi (Karachi Circular Railway), with an empowered and monitored municipal agency as the lead public administrator of the service. Only the state can ensure that all segments of society benefit from the system. Lahore has been proactive, given its recent history of transportation program investment (Malik 2013). Furthermore, standardized, transparent, and accountable processes and procedures must be followed to avoid the mismanagement of the past.

Third, in light of the state's inability to effectively address incidences of child labor, there is an opportunity for state–IS (NGOs, CBOs) collaboration to monitor violators of labor rights. This is especially the case in the urban industrial fringe, where bonded labor is most prevalent, and under-resourced municipal/provincial inspectors are unable to cover large geographical areas. State monitoring could be enhanced by using CBO/NGO-citizen groups to monitor labor conditions that are beyond the reach of state offices and a range of typologies of relationships between state and non-state actors are present in the literature (Coston 1998). Pilot projects where state agencies have worked with Tehsil Volunteer Agencies (TVA) have successfully reduced the activity of labor rights violators.

6.8 Conclusion

The findings and analysis support the study's initial hypothesis, that the structures leading to policy failure in engaging the IS are the result of political constraints and interference from higher levels of government, rather than solely mismanagement at lower levels of government. As institutions and the bureaucracy as a whole have been compromised in recent years (Cheema and Sayeed 2006), evidence from this study suggests that the lack of IS engagement is caused by a lack of institutional capacity, rather than solely corruption. Furthermore, the ongoing detachment of higher levels of government from urban realities and the promotion of donor-driven projects have adversely impacted the IS. Solutions to IS engagement hinge on local efforts and community–municipal engagement rather than higher level policy change and legislative reform. Front-line engagement, serving as conduits of bottom-up development, may expose the inefficiency of retaining power at higher tiers of the state and importing capital-intensive solutions from abroad. Further research should consider the returns of aligning federal and provincial support for existing municipal tiers of government, to channel and empower the capacity of lower tier state actors (effectively deconcentrating power) to engage the IS.

In the context of federal–municipal and provincial–municipal relations, state success in IS engagement hinges on community organization and engagement of the public sector. While CBOs are best positioned to express and represent the needs of the IS, the public sector must take the lead in service delivery investment that extends to all members of urban society, especially as mega city populations continue to surge (Pasha and Palanivel 2003). Real civic engagement with impoverished and underserviced communities should be facilitated by CBOs embedded in the IS. The interview responses support this perception, citing the many constraints to engaging the IS that are rooted within the politicization of processes, the capturing of benefits by elites, and the unnecessary interference in service delivery. Municipal programs cannot function satisfactorily while a lack of resources results in favoritism, nepotism, and corruption. The solution to overcoming the resulting bureaucratic inertia lies in freeing municipal agencies from politicization and interference, establishing robust monitoring mechanisms, strengthening institutions, and ensuring capacity building at the lower levels closest to the CBOs of the IS. In the same way that government cannot operate on the ground without effective community engagement, communities must engage the government and hold them to account in order to realize successful service delivery.

References

ADB. (2003). Asian Development Bank. *Report and recommendation of the President to the Board of Directors on a proposed program cluster of loans to the Islamic Republic of Pakistan for the PRMP*. Report—Pak 36057.

ADB. (2004a). Asian Development Bank. *Devolution in Pakistan—Overview of the ADB/DFID/World Bank study*. Islamabad: Asian Development Bank.

ADB. (2004b). Asian Development Bank. *Devolution in Pakistan—An assessment and recommendations for Action.* Islamabad: Asian Development Bank.

ADB. (2005). Asian Development Bank. *Aide memoire, megacity development project for Karachi.* Manila: Asian Development Bank.

ADB. (2009). Asian Development Bank. Sindh urban services project. www.adb.org/projects/project.asp?id=37220. Accessed January 21, 2018.

Ahmad, M. S., & Talib, N. B. A. (2013). Local government systems and decentralization: Evidence from Pakistan's devolution plan. *Contemporary Economics, 7*(1), 33–34.

Ahmad, N., & Anjum, G. A. (2012). Legal and institutional perplexities hampering the implementation of urban development plans in Pakistan. *Cities, 29*(4), 271–277.

Ahmad, N., & Wasti, S. A. (2002). Pakistan. In P. Smoke & Y.-H. Kim (Eds.), *Intergovernmental fiscal transfers in Asia: Current practice and challenges for the future* (pp. 176–218). Manila: Asian Development Bank.

Ahmad, Z., Khalid, I., & Muzaffar, M. (2015). An analysis of the relationship between local and provincial governments in Pakistan (2001–2009). *Journal of Political Studies, 22*(1), 63–74.

Ahmed, N. (2008). *Water supply in Karachi—Issues and prospects*. Karachi: Oxford University Press.

Ahmed, Q. M., & Lodhi, A. (2008). Provincial finance commission: Options for fiscal transfers. *Pakistan Development Review, 47*(4), 747–762.

Ali, M. Z. (2005). Occupational health and safety in Pakistan. *Pakistan Institute of Labour Education and Research, 3*(4), 10–14.

Alvi, I. (1997). *The IS in urban economy: Low income housing in Lahore*. Karachi: Oxford University Press.

Anwar, N. H. (2012). State power, civic participation and the urban frontier: The politics of the commons in Karachi. *Antipode, 44*(3), 601–620.

Applied Economics Research Centre. (1990). *Local government finances and administration in Pakistan.* Research Report no. 72. Karachi, Pakistan: University of Karachi.

Babb, S. (2005). The social consequences of structural adjustment: Recent evidence and current debates. *Annual Review of Sociology, 31,* 199–222.

Bano, M. (2008). Non-profit education providers vis-à-vis the private sector: Comparative analysis of non-governmental organizations and traditional voluntary organizations in Pakistan. *Compare: A Journal of Comparative and International Education, 38*(4), 471–482.

Bano, M. (2012). *Breakdown in Pakistan: How aid is eroding institutions for collective action*. Stanford: Stanford University Press.

Baqir, F. (2009). Civil society and development of social infrastructure in Pakistan. In *11th Sustainable Development Conference, 1–3 December 2008, Islamabad, Pakistan*.

Batley, R., & Larbi, G. (2004). *The changing role of government: The reform of public services in developing countries*. Birmingham: Palgrave MacMillan.

Bhagat, R. (2005). Rural–urban classification and municipal governance in India. *Singapore Journal of Tropical Geography, 26*(1), 61–73.

Binswanger, H. P., & Nguyen, T.-V. (2005). A step by step guide to scale up community driven development. In *African water laws: Plural legislative frameworks for rural water management in Africa, 26–28 January, Johannesburg, South Africa*.

Bjørnskov, C. (2010). Do elites benefit from democracy and foreign aid in developing countries? *Journal of Development Economics, 92*(2), 115–124.

Bokhari, J. (2017, September 25). Karachi—A case study of an unsustainable city. *Dawn News*, Karachi, Pakistan. https://www.dawn.com/news/1359910.

Brockerff, M., & Brennan, E. (1998). The poverty of cities in developing regions. *Population and Development Review, 24*(1), 74–115.

Cheema, A., Khwaja, A. I., & Qadir, A. (2005). Decentralization in Pakistan: Context, content and causes. *Kennedy School of Government Faculty Working Paper,* RWP05-034. Boston, MA: Harvard University.

Cheema, A., & Mohmand, S. (2007). Decentralization and inequality in Pakistan: Bridging the gap that divides? In M. A. Saqib (Ed.), *Devolution and governance: Reforms in Pakistan* (pp. 167–178). Karachi: Oxford University Press.

Cheema, A., & Mohmand, S. K. (2003). Local government reforms in Pakistan: Legitimizing centralization or a driver for pro-poor change? Paper written for the "*Pakistan Drivers of Pro-Poor Change*" Study conducted by Institute of Development Studies, UK, Collective for Social Science Research, Karachi, DFID, UK.

Cheema, A., & Sayeed, A. (2006). Bureaucracy and pro-poor change. *PIDE Working Papers 2006:3*. Islamabad: Pakistan Institute of Development Economics.

Chen, M., Vanek, J., & Carr, M. (2004). *Mainstreaming informal employment and gender in poverty reduction: A handbook for policy-makers and other stakeholders*. London: Commonwealth Secretariat.

Coston, J. M. (1998). A model and typology of Government: NGO relationships. *Nonprofit and Voluntary Sector Quarterly, 27*(3), 358–382.

Cyan, M. R., Rasool, M., & Pasha, O. (2017). A symbiosis of civil service and politics in transfers: The case of Pakistan's management cadres. *Public Administration, 95*(4), 1077–1091.

Daechsel, M. (2011). *Islamabad and the politics of international development in Pakistan*. Karachi: Cambridge University Press.

Dasandi, N., & Esteve, M. (2017). The politics–bureaucracy interface in developing countries. *Public Administration and Development, 37*(4), 231–245.

Davey, K. (1996). *Urban management: The challenge of growth*. Brookfield: Avebury.

Davis, M. (2006). *Planet of slums*. Los Angeles: Verso Press.

Dawn Newspaper Group. (2014, June 14). Research Shows BISP is 'biased, misused'. *Dawn Newspapers*, Lahore, Pakistan.

Devas, N. (2004). *Local governance and pro-poor service delivery.* Asia Development Bank regional seminar and learning event. 10–12 February. Manilla: Asia Development Bank.

Duijsens, R. (2010). Humanitarian challenges of urbanization. *International Review of the Red Cross, 92*(878), 351–368.

Ellis, P. (2007). Property taxes in the large cities of Punjab Province, Pakistan. *Journal of Property Tax Assessment & Administration, 4*(2), 31–52.

Ercelan, A. (2005). *Narrow visions and grim outcomes: Aid from Tokyo to Islamabad via Washington and Manila—who decides what happens to whom in Pakistan?* Paper presented at the International Conference on 50 Years of Japan ODA—Reality of Aid Asia-Pacific Network, 6–8 October 2004, Tokyo, Japan.

Gazdar, H., & Mallah, H. B. (2013). Informality and political violence in Karachi. *Urban Studies, 50*(15), 3099–3115.

Gerxhani, K. (2004). The informal sector in developed and less developed countries: A literature survey. *Public Choice, 120*(3–4), 267–300.

Ghalib, A., Qadir, A., & Ahmed, S. R. (2017). Evaluation of developmental progress in some cities of Punjab, Pakistan. *Using Urban Sustainability Indicators, 9*(8), 1473–1475.

Goldfinch, S., DeRouen, K., & Pospieszna, P. (2013). Flying blind? Evidence for good governance-public management reform agendas, implementation and outcomes in low income countries. *Public Administration and Development, 33*(1), 50–61.

Gorson, F. S., Lawrence, S., & Gregory, R. (2003). *The ADB in its own words*. Manila: Asian Development Bank.

Government of Pakistan. (2015). *National report of Pakistan for Habitat III, Ministry of Climate Change—April 2015*. Islamabad: Government of Pakistan.
Government of Punjab. (2004). *Annual report on capacity building of local governments*. Lahore: Government of Punjab Planning and Development Department.
Government of Punjab. (2006). *Poverty-focused investment strategy (PFIS)*. Lahore: Government of Punjab, Planning and Development Department–Punjab Resource Management Program (PRMP).
Government of Punjab. (2013). *Punjab Government efficiency improvement program, September 2014*. Islamabad: Government of Punjab.
Government of the Punjab Finance Department. (2017). *Release of share of PFC to local governments* forecasted from monthly provincial allocations for January and February, 2017. https://lgcd.punjab.gov.pk/system/files/selection%20%281%29.pdf. Accessed January 21, 2018.
Hanif, N. (1996, August 25). The structure of government in Pakistan. *The News on Friday*, Karachi, Pakistan.
Haque, M. S. (1996). The context-less nature of public administration in third world countries. *International Review of Administrative Sciences, 62*(4), 315–329.
Haque, M. S. (2013). Public administration in a globalized Asia: Intellectual identities, challenges and prospects. *Public Administration and Development, 33*(4), 262–274.
Harvey, D. (2007). Neoliberalism as creative destruction. *The Annals of the American Academy of Political and Social Science, 610*(1), 21–44.
Hasan, A. (1997). *Working with government*. Karachi: City Press.
Hasan, A. (1998). *Community initiatives: Four case studies from Karachi*. Karachi: City Press.
Hasan, A. (1999). *Understanding Karachi—Planning and reform for the future*. Karachi: City Press.
Hasan, A. (2002a). The changing nature of the IS in Karachi as a result of global restructuring and liberalization. *Environment and Urbanization, 14*(1), 69–78.
Hasan, A. (2002b). *The Unplanned revolution—Observations on the process of socio economic change in Pakistan*. Karachi: City Press.
Hasan, A. (2006a). Orangi Pilot Project: The expansion of work beyond Orangi and the mapping of informal settlements and infrastructure. *Environment and Urbanization, 18*(2), 451–480.
Hasan, A. (2006b). *The scale and cause of urban change in Pakistan*. Karachi: Ushba Press.
Hasan, A. (2008). The Urban Resource Centre, Karachi. *The IIED Gatekeeper Series*. London: International Institute of Environment and Development.
Hasan, A. (2010). *Participatory development: The story of the Orangi Pilot Project-Research and Training Institute and the Urban Resource Centre*. Karachi, Pakistan: Oxford University Press.
Hasan, A. (2015). Responding to the transport crisis in Karachi, *IIED—Working Paper, July 2015*. London: International Institute of Environment and Development.
Hasnain, Z. (2008). The politics of service delivery in Pakistan: Political parties and the incentives for patronage, 1988–1999. *The Pakistan Development Review, 47*(2), 129–151.
Hussain, N., & Shelley, L. (2016). Karachi: Organized crime in a key megacity. *Connections: The Quarterly Journal, 15*(3), 5–15.
ICG. (2017). [International Crisis Group]. *Pakistan: Stoking the fire in Karachi*. Brussels: International Crisis Group.
ILO. (2002). International Labour Organization. *Women and men in the informal economy: A statistical picture*. Geneva: ILO. http://www.gdrc.org/informal/huss0772.pdf. Accessed January 21, 2018.
Ismail, A. (2004). *The story of SKAA—Sindh Katchi Abadis Authority*. Karachi: City Press.
Jonakin, J. (2006). Cycling between vice and virtue: Assessing the informal sectors' awkward role under neoliberal reform. *Review of International Political Economy, 13*(2), 290–312.
Kalan, J. (2014). Think again: Megacities. *Foreign Policy, 206,* 69–73.
Khan, A. H. (1996). *Orangi Pilot Project: Reminiscences and reflections*. Delhi: Oxford University Press.
Khan, N. (2007). Mobilization and violence in the Mohajir community of Karachi. *Economic and Political Weekly, 42*(25).

Khan, S. (2008). Local governments and local elites. *Local Government Studies, 34*(4), 509–528.
Khan, S., & Swapan, M. S. H. (2013). From blueprint master plans to democratic planning in South Asian cities: Pursuing good governance agenda against prevalent patron–client networks. *Habitat International, 38,* 183–191.
Khan, S. R., Khan, F. S., & Akhtar, A. S. (2007). *Initiating devolution for service delivery in Pakistan*. Karachi: Oxford University Press.
Kochanek, S. A., & Weiss, A. M. (1991). *Culture, class, and development in Pakistan: The emergence of an industrial bourgeoisie in Punjab*. Boulder: Westview Press.
Laquian, A. (2005a). Metropolitan governance reform in Asia. *Journal of Public Administration and Development, 25*(4), 307–315.
Laquian, A. (2005b). *Beyond metropolis: The planning and governance of Asia's mega urban regions*. Washington DC: Woodrow Wilson Center Press.
Laquian, A., Tewari, V., & Hanley, L. (2007). *The Inclusive city: Infrastructure and public services for the urban poor in Asia*. Washington DC: Woodrow Wilson Centre Press.
Malik, A. (2013). Policy options for financing urban transportation in resource constrained environments: The case of Lahore, Pakistan. *The Pakistan Development Review, 52*(2), 139–155.
Mansoor, H. (2017, June 21). KMC Council passes Rs 27.145 Bn. Budget for 2017–2018. *Dawn News*, Karachi, Pakistan. https://www.dawn.com/news/1340718.
McCarney, P., & Stren, R. (2003). *Governance on the ground: Innovations and discontinuities in cities of the developing world*. Washington DC: Woodrow Wilson Center Press.
MHHDC. (2014). Mahub ul Haq Human Development Centre. *Human development in South Asia 2014: Urbanization, challenges and opportunities.* Lahore: Mahub ul Haq Human Development Centre, Lahore University of Management Sciences.
Moser, C. (2006). Reducing urban violence in developing countries. *Brookings Global Economy and Development Reviews*. Washington DC: The Brookings Institution.
Naseemullah, A., & Arnold, C. E. (2015). The politics of developmental state persistence: Institutional origins, industrialization, and provincial challenge. *Studies in Comparative International Development, 50*(1), 121–142.
Orangi Pilot Project. (2008). *Institutions and programs: 115th quarterly report, July, Aug., Sept. 2008*. Karachi, Pakistan: Orangi Pilot Project Training Institute.
Pakistan Observer. (2017). KDA 6.302 Bn. Budget approved for 2017–2018. 27 July. http://pakobserver.net/kdas-rs6301-9m-budget-fy-2017-18-approved/. Accessed January 21, 2018.
Pasha, H. A., & Palanivel, T. (2003). Pro-poor growth and policies: The Asian experience. *The Pakistan Development Review, 42*(4, 1), 313–348.
Perry, G. E., Maloney, W. F., Arias, O. S., Fajnzylber, P., Mason, A. D., Saavedra-Chanduvi, J., Bosch, M. (2007). *Informality: Exit and exclusion*. World Bank Latin American and Caribbean studies. Washington DC: World Bank. http://documents.worldbank.org/curated/en/326611468163756420/Informality-exit-and-exclusion.
Pervaiz, A., Rahman, P., & Hasan, A. (2008). Lessons from Karachi: The role of demonstration, documentation, mapping and relationship building in advocacy for improved urban sanitation and water services. *Human Settlements Discussion Paper Series, Water—6*. London: International Institute for Environment and Development (IIED).
PWC. (2009). Price Waterhouse Coopers. Global city GDP rankings 2008–2025. https://web.archive.org/web/20110428032945/https://www.ukmediacentre.pwc.com/Media-Library/Global-city-GDP-rankings-2008-2025-61a.aspx. Accessed January 21, 2018.
Qasim, M. (2006). *Status of implementation of LGO 2001 primary research study of four city districts under Federal TIP-F 309*. Islamabad: Government of Pakistan, Finance Division, National Program Support Office (NPSO), Decentralization Support Program, Policy Research for Strengthening Local Government.
Rafi, M. M., Lodi, S. H., & Hasan, N. M. (2012). Corruption in public infrastructure service and delivery. *The Karachi Case Study, 17*(4), 370–387.

Rakodi, C. (2002). Economic development, urbanization and poverty. In C. Rakodi & T. Lloyd-Jones (Eds.), *Urban livelihoods: A people-centred approach to reducing poverty* (pp. 23–34). London: Earthscan Publications.

Rehman, P. (2000). *Sewerage, drainage and treatment plants: Responsibilities, finances, issues and policy changes needed*. Karachi: OPP RTI.

Reza, A. (2003). Underestimating urbanization. In S. A. Zaidi (Ed.), *Continuity and change: Socio political and institutional dynamics in Pakistan* (pp. 95–105). Karachi: City Press.

Rizwan, M. (2011, June 29). Development budget: Lahore—Punjab Governments Favorite. *Express Tribune*, Islamabad, Pakistan. https://tribune.com.pk/story/198392/development-budget-lahore-punjab-govts-favourite/.

Satterthwaite, D. (2014). Getting local governments, residents and enterprises to respond to the new IPCC assessment. *Environment and Urbanization, 26*(1), 3–10.

Sayeed, A. (1996). *Social sector development and social summit*. Karachi: Social Policy and Development Centre.

Seim, L. T., & Søreide, T. (2009). Bureaucratic complexity and impacts of corruption in utilities. *Utilities Policy, 17*(2), 176–184.

Sengupta, A. (2014). Breaking up: Dividing assets between India and Pakistan in times of partition. *Indian Economic and Social History Review, 51*(4), 529–548.

Shaheen, F. H. (2009). *Examining the effectiveness of formal-informal sector engagement in municipal Pakistan: Political vs. institutional constraints.* Toronto: Ryerson University, School of Graduate Studies, Program in Public Policy and Administration.

Shaheen, F. H. (2014). Citizen-state engagement for service delivery in Bangladesh, Pakistan and India. In S. S. Aneel, U. T. Haroon, & I. Niazi (Eds.), *Creating momentum: Today is tomorrow* (pp. 83–198). Lahore: Sang-Meel Publications and Islamabad: Sustainable Development Policy Institute.

Siddiqui, T. (2001). *Towards good governance*. Karachi: Oxford University Press.

Siddiqui, K. (2004). *Mega city governance in South Asia*. Dhaka: University Press.

Siddiqui, T. (2005). *Dynamics of social change*. Karachi: Sama Press.

Siddiqui, T. (2006). *The dynamics of bureaucratic rule in Pakistan: A personal view, experiencing the state*. Karachi: Oxford University Press.

Siddiqui, T. (2008*).* Presentation on incremental housing scheme, Karachi, Pakistan. Powerpoint Presentation, SAIBAAN, Karachi, Pakistan.

Smoke, P. (2015). Managing public sector decentralization in developing countries: Moving beyond conventional recipes. *Public Administration and Development, 35,* 250–262.

Staff Report. (2017, July 11). Rs. 57.96 Bn. LDA Annual Budget Approved. *The International News,* Islamabad, Pakistan. https://www.thenews.com.pk/print/215665-Rs5796b-LDA-annual-budget-approved, July 11, 2017, Islamabad, Pakistan.

Staff Reporter. (2011, July 20). PML-Q started Lahore mass-transit project in 2004: Pervaiz. *The International News*, Islamabad, Pakistan. https://www.thenews.com.pk/archive/print/615322-pml-q-started-lahore-mass-transit-project-in-2004-pervaiz.

Subramaniam, V. (1990). *Public administration in the third world: An international handbook*. New York: Greenwood Press.

Tacoli, C. (2007). Poverty, inequality and the underestimation of rural-urban linkages. *Development, 50*(2), 90–95.

Tendler, J. (1997). *Good governance in the tropics*. Baltimore: Johns Hopkins University Press.

Urban Unit. (2016). Interim Report, Volume 1, TA-8683 PAK: Punjab Intermediate Cities Improvement Investment Program (46526-001). Prepared by Saaf Consult BV, Netherlands, with devconsult and NEC. Islamabad: Urban Unit, December 4.

Wignaraja, P. (2005). Pro-poor growth and governance in South Asia: Decentralization and participatory development. *The Pakistan Development Review, 44*(4, 2), 1159–1171.

Williams, C. C., & Shahid, M. (2016). Informal entrepreneurship and institutional theory: Explaining the varying degrees of (in)formalization of entrepreneurs in Pakistan. *Entrepreneurship and Regional Development, 28*(1–2), 1–25.

Wilson, D. C., Velis, C., & Cheeseman, C. (2006). Role of informal sector recycling in waste management in developing countries. *Habitat International, 30*(4), 797–808.
Winton, A. (2004). Urban violence: A guide to the literature. *Environment and Urbanization, 16*(2), 165–179.
World Bank. (2006a). *Pakistan—Improvement to Financial Reporting & Auditing Project (PIFRA)*. Washington DC: World Bank Group.
World Bank. (2006b). *Government of Punjab final report: Urban water supply and sewerage reform strategy*. Prepared by Fichtner Gmbh & Co., Stuttgart, Germany. World Bank, Islamabad, Pakistan.
World Bank. (2014). *Municipal finances: A handbook for local governments*. Washington DC: World Bank Group.
Zaidi, S. A. (2001). *Can the public sector deliver? An examination of the work of the Sindh Katchi Abadis Authority, UNDP LIFE Program*. Karachi: City Press.
Zaidi, S. A. (2008). *Issues in Pakistan's economy* (2nd ed.). Karachi: Oxford University Press.

Chapter 7
China's New Suburban Reality: An Attempt to Systematically Define the Chinese Suburb

Pengfei Li

Abstract The Chinese urban landscape has changed remarkably in the last two decades. Inner city redevelopment or renovation projects have resulted in massive demolition and displacement in many cities, while large-scale residential development projects in suburban areas have taken over land formerly utilized exclusively for farming or industry. These suburban projects have led to the loss of farmland, the relocation of former villagers, and massive housing consumption by middle-class Chinese. The two parallel processes of urban redevelopment and suburban development have totally transformed China's urban landscape. Two main types of urban fringe have been produced or shaped in the last two decades: (i) the "rural–urban conjunction area," "rural–urban fringe zone," or "chengxiang jiehebu," and (ii) the "suburb." Important parts of China's new urban reality, these two types of suburb provide two radically different ways of life. This chapter focuses on these two urban fringe areas, analyzes how China's new suburban reality has been produced and shaped, discusses how local people "speak" about the urban fringe, and depicts how suburbanites actually live in the newly built environment. Only by situating China's new suburban reality in historical context can we understand the radical difference between suburbia in China and that in the West. China's suburbia is an integrated part of China's urban system, which does not (and probably will never) support an independent suburban way of life.

Keywords China · Suburb · Suburbanization · Suburban way of life
Regionalism · Rural–urban fringe zone

P. Li (✉)
Department of Urban Studies, Queens College, City University of New York, 65-30 Kissena Blvd., Queens, NY 11367-1597, USA
e-mail: pengfei.li@qc.cuny.edu

B. Grant et al. (eds.), *Metropolitan Governance in Asia and the Pacific Rim*,
https://doi.org/10.1007/978-981-13-0206-0_7

7.1 Introduction

The past two decades have witnessed a remarkable change in the Chinese urban landscape. Inner city redevelopment or renovation projects in many cities have resulted in massive demolition and displacement (Fang 2000; Zhang 2006, 2010). At the same time, large-scale residential development projects in suburban areas previously devoted to farming or industry (with residential complexes inside factories) have led to the loss of farmland, the relocation of villagers, and massive housing consumption by middle-class Chinese (Fang 2000; Feng et al. 2008). The two parallel processes of urban redevelopment and suburban development are closely connected. On the one hand, most of the displaced people resulting from city redevelopment projects have been accommodated by suburban development projects (Zhou and Ma 2000; Zhang and Fang 2004). On the other hand, suburban development projects, especially commercial housing projects, enable well-off migrant workers and hard-working university graduates (with family support) to buy a home and settle down in a city where they may not yet have a household registration (or *hukou*). These new housing developments are also home to local middle-class people (Feng et al. 2008; Fleischer 2010).

Researchers have studied China's urban redevelopment projects (Fang 2000; Zhang and Fang 2004; Zhang 2006), the consequent displacement/relocation processes (Wu 2004; Fang 2006; He and Wu 2007; Li and Song 2009), and suburban development projects (Zhou and Ma 2000; Feng et al. 2008; Wu 2010). These scholars are fully aware that most displaced people have been dispersed into the suburbs (Zhang and Fang 2004; Fang 2006; Zhang 2006; He and Wu 2007; Feng et al. 2008; Li and Song 2009) and some have pointed out the recent increase in voluntary moves to the suburbs (Feng et al. 2008; Zhou and Logan 2008; Wu 2010). Zhang (2010) even claims that some well-designed suburban gated communities have become the "paradise" of well-off Chinese, who are mainly interested in their own safety and personal lives. Most research, however, has focused on the origin and socioeconomic process of China's suburbanization, instead of how suburbanites actually "speak" about, perceive, and live in the suburbs. Moreover, previous studies fail to explicitly point out how China's suburbia radically differs from suburbia in the West.

This chapter attempts to provide a systematic definition of the Chinese suburb. It emphasizes how people perceive the suburban reality, depicts their everyday suburban life, and discusses how Chinese suburbs were produced in the first place. China's suburbanization differs radically from the process in the West, especially in the United States. Not only has the state consistently played a leading role in suburban development, but China's suburbs also lack the independence—both economically and politically—that most suburbs enjoy in the West. As a result, suburbanism is not (and probably will never be) a way of life in China, where suburbia does not offer a way of life independent from the city.

The chapter is divided into four main parts. Section 7.2 offers a preliminary definition of the Chinese suburb and clarifies two types of Chinese suburb: the suburb itself and the rural–urban fringe zone. Section 7.3 discusses the suburban

developments and how these two types of suburb have been produced by first Socialist and then contemporary China, situating these two periods into the historical Chinese metropolitan pattern. Section 7.4 details people's perceptions of China's suburbs and their suburban everyday life, based on fieldwork in Beijing and other major Chinese cities. The chapter concludes with Sect. 7.5, which emphasizes the historical status of China's suburbs and points out how contemporary Chinese suburbanites' perceptions of their living environment and China's new suburban reality are deeply related in its historical regionalism. This chapter is mainly analytical, utilizing historical, statistical, and ethnographic data. It also discusses residents' daily lives and their views of their urban fringe. All data about human subjects were collected and analyzed in accordance with guidelines from the Graduate Center, City University of New York and agreement from my interviewees,[1] although space limitations preclude a methodological discussion about data collection and data analysis.

7.2 Two Types of Chinese Suburbs

At the beginning of housing reform in the late 1980s, China's newly built suburban communities were intended only for the relocated urban poor (Zhou and Ma 2000). Researchers call this early suburbanization "government-led passive suburbanization" (Feng et al. 2008; Zhou and Logan 2008). Commodity housing built in major Chinese cities' suburban areas from the mid-1990s has targeted middle- and upper-class buyers, who are mostly successful businesspeople, well-off migrant workers, and hardworking university graduates without a local household registration or *hukou* in those major cities. Feng et al. (2008) and Zhou and Logan (2008) call this new trend "market-oriented active suburbanization."

It is this type of suburb to which most urban scholars outside China pay attention. This suburb, the product of China's process of suburbanization, can be defined as *the place or district outside a city center which is mainly residential and accommodates a large number of previous urban residents and well-off migrants who work in that city and newly own a suburban home in that city*. It is formal, and it is large scale.

However, this definition needs to be clarified in two ways. First, "suburb" here may refer to a large suburban district or all suburban districts within a huge Chinese metropolis or municipality (Zhou and Ma 2000). For example, a suburb in Beijing can be any place located outside Beijing's city center but within Beijing's municipality territory. A municipality in China's standardized and hierarchical geopolitical system can be a huge area. Beijing has an area of 16,800 km^2 (6486.5 square miles), hosting 21.2 million people (Beijing Statistics Bureau 2013). A person who lives in suburban Beijing may live anywhere outside Beijing's city center but within the 16,800 km^2 municipality. I discuss China's metropolitan structure and its regionalism in more detail in the following sections.

[1] Because this paper has to deal with translating traditional Chinese words into modern terms and translating Chinese into English, the author uses pinyin to translate terms that do not have direct modern Chinese and English correspondence.

The second meaning of this formal type of suburb is a specific suburban community. So the same person saying that they live in suburban Beijing may be referring to a particular suburban gated community instead of a huge suburban district. The suburb, to them, is their own suburban community. Thus, *the suburb can also be one of the specific gated communities outside a city center which is purely residential and accommodates a large number of previous urban residents and well-off migrants who work in that city and newly own a suburban home in that city*.

When urban scholars (Zhou and Ma 2000; Zhang 2006, 2010; Feng et al. 2008; Wu 2010) discuss China's suburbs, they can be referring to either one of these two dramatically different realities: (i) a huge district or entire suburban area, or (ii) a particular suburban community. Both of these two interpretations require further clarification.

Rather than focusing on the formal suburban setting, urban scholars (Zhou and Gao 2001; Fu and Chen 2010) within China who publish mainly in Chinese are more interested in informal suburban settings. It is clearly nonurban. Neither is it rural. Rather, these areas are called "rural–urban fringe zones." *The rural-urban fringe zone*, out of the process of China's urbanization, *is a mixed-use area which is physically adjacent to a city center and accommodates a large number of local nonurban residents and low-income migrant workers who rent the locals' usually informal houses and work either in the area or in other parts of the city*. The housing in the rural–urban fringe zone is the least formal of all housing sectors in China. It is even more chaotic and informal than rural residents' self-constructed houses. Various scholars (Zhang 2001; He 2013) have analyzed this special Chinese living environment under the theme "urban village." Urban villages in China, however, are clearly not urban. They are located in urban fringes and historically they were the genuine suburbs, as suburban markets or towns outside the walled cities. In contemporary Chinese municipalities, the political and economic status of these areas has become more vague. The urban villages analyzed by He (2013) have well-constructed (low-quality) high-rise apartments managed and owned by local nonurban residents who were peasants or fishers. Beijing's urban villages, from Zhang's (2001) study, are strongly regulated by the state. Local nonresidents cannot build high-rise apartments to make more rental income. Instead, they secretly build additional housing units in their yards or adjacent to their legal houses.

These types of informal setting have no formal name. Scholars call them the "rural–urban fringe" or "urban village," whereas residents label them by location (south fourth ring road, west fourth ring road, etc.), housing pattern (bungalow area), or function (wholesale area). Clearly, in this informal setting, residents' perceptions of their living environment is not as fixed as scholars' categorization.

7.3 The Production of China's Suburbs

The two types of Chinese suburb discussed above have been produced, shaped, and reshaped by rapid urban and suburban development in the last 20 years. This section

provides an account of China's historical metropolitan pattern and the pre-reform socialist urban reality, and then discusses these more recent developments.

7.3.1 The Metropolitan Patterns in Feudal and Imperial China

Suburban settlements have existed in China for at least 2500 years. In ancient China, as early as the Zhou Dynasty (1046–256 BC), "suburb" (*jiao*) as a concept of place appeared in several classical books such as *The Book of Change*, *The Book of Rites*, and *The Classic Book of Poetry*. In *The Book of Rites* and its various commentaries (Liji Wangzhi, n.d.), the suburb was officially defined as "the place within a 100 *li* [equal to 25.8 miles] radius of the city."

In the Zhou Dynasty, the king (or the prince, duke, etc., assigned by the king), his ruling noblemen, and some of his tribe members lived in the city, while slaves lived in the suburb that produced food and other items for the city. Since the Zhou Dynasty was a slave society, the king's tribe members had a higher status than the suppressed tribe members. Thus, *The Rites of Zhou* further distinguished the suburb from the wild place, *ye*. Some of the king's tribe members lived in the suburb. The suppressed tribes, in contrast, all lived in the wild *ye*, except for slaves who worked in the suburb. As well-established terms, "suburb," "west suburb," "east suburb," "four suburbs" were frequently used to describe the locales of events in books of the Zhou Dynasty.

In later dynasties, China's walled cities became larger and multifunctional, especially in the capital cities and regional centers. Tang's (618–907 AD) Chang'an and Yangzhou, for instance, were large walled cities that had different districts for various handcrafted industries and commercial activities, all inside the city wall. The suburbs, then, became less important because many production activities, such as alcohol making and weaving that used to take place in the suburbs, had been moved inside the city. The sole production outside the city in Imperial China was farming (and family-scale weaving). This dual system of city and countryside has persisted until now. The suburb was purely a geographic concept which did not have any sociopolitical functions, except being the seat of the emperor's summer palace and the place of large religious sites such as Buddhist and Taoist temples. These functions in the suburb were ad hoc because whatever took place in the suburb was surrounded by agricultural activities. Even monks and Taoist priests engaged in farm work outside their temples.

The key characteristic of China's historical metropolitan pattern was that China had maintained the tradition of centralism or a centralized regime. For the most part in its imperial history, there were three levels of local government—the provincial government (*xingsheng*, *dao*, or *xunfu*), the prefecture government (the prefectural seat, called *zhifu*, featuring governors of prefectures), and the county government (the governor of a county was officially called *zhixian*). Figure 7.1 shows a map

drawn in the Ming Dynasty (1541). It was part of *Beizhili* (one of the two provinces that were directly administered by Beijing). This part of *Beizhili* contained four prefectures (approximately the four red dots marked by the author): Beijing (*Shuntian fu*), Yongping, Baoding, and Hejian. Each of these four *fu* had their own prefecture seat (marked by a square □), subordinate zhou (marked by a diamond ◊), and subordinate counties (marked by a circle ○). Taking Beijing as an example, Changping and Tong, the so-called suburban districts of contemporary Beijing, were not suburbs at all, historically speaking. They were walled cities themselves, as zhou (◊), although they were politically subordinate to Beijing Shuntian fu (□) (Guo and Jin 2007).

Three implications can be drawn from this historical map. First, China's cities were historically governed as regions. A *fu* (□) was a large political territory which normally took charge of several *zhou* (◊) and counties; governments of *zhou* and county were at the same level, except if a large zhou (◊) was directly governed by the province. Second, although the cities (prefecture seats, *zhou*, and counties) in ancient China were compact, as walled clusters, they administered the vast agriculture land surrounding them by collecting taxes from the countryside and conscripting peasants for national events such as wars and large infrastructure projects.

Third, suburbs had little political power. Figure 7.2 depicts the pattern of the prefecture (municipality) in Imperial China before 1949. The prefecture seat, officially called *zhifu*, was the largest walled city in the whole region. There were several smaller cities in the prefecture (A and B in Fig. 7.1), whose governors were called *zhizhou* or *zhixian*. In order to match this figure with the historical map, a square

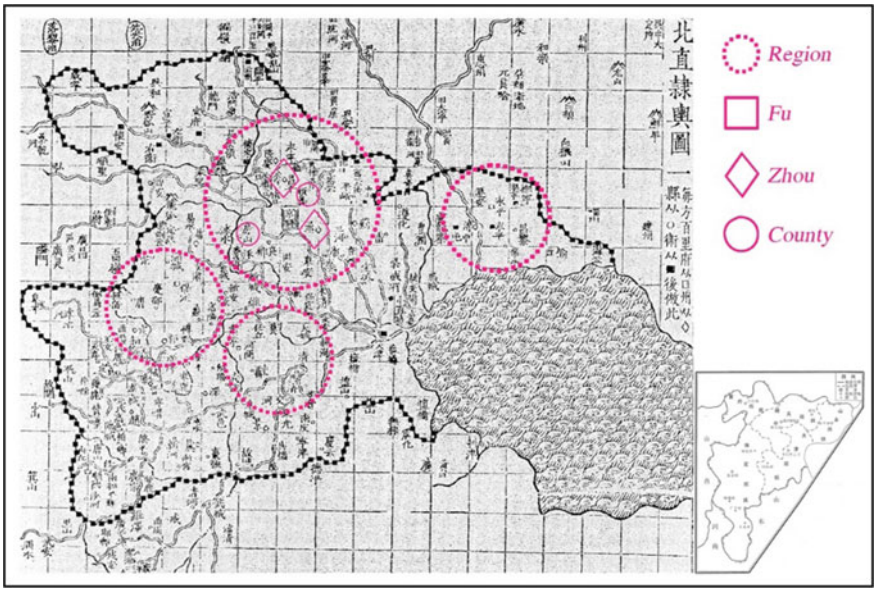

Fig. 7.1 A map of Beizhili, the north province, in the Ming Dynasty, 1541. *Source* Adapted and edited from Guo and Jin (2007)

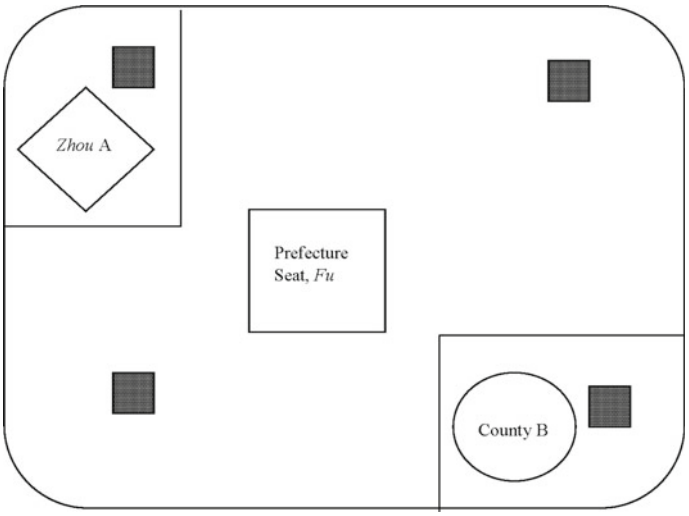

Fig. 7.2 The prefecture pattern in Imperial China. *Source* Redrawn by the author based on Fig. 7.1

represents fu (□), a diamond refers to zhou (◊), a circle stands for county (○), while dark squares (■) represent small towns or suburban market towns outside the walled city (*fu*, *zhou*, or county). The blank areas represent the agricultural land or other natural lots that were not arable. Both prefecture and county had their own farmland surrounding their urban centers. Zhifu, as the highest official in the region (the highest governor and the highest judge), took charge of the entire region.

7.3.2 Suburban Reality in Socialist China

After 1949, Socialist China kept the tradition of centralism, buoyed on by nationalist enthusiasm and new technologies that facilitated controlling a vast region. China's geopolitical landscape became even more hierarchical—the central government, the provincial government, the prefecture government (relabeled the municipality), the county government, the town government, and the village committee, all forming an integrated, standardized system. This six-level structure was initiated in the early 1950s but not finalized until after the 1980s (Hsing 2010). Figure 7.3 illustrates the governmental structure from the prefecture level (the municipality) to its subordinate units. Because the geopolitical boundary of the local government was assigned and legitimized by the central government on the basis of historical legacies, the prefectures (□)—now municipalities—retained their imperial pattern geopolitically. Although the prefecture seat in a region might switch from one city to another, the prefecture level was well preserved as the real local power in Socialist China.

The municipal government supervises the core districts, the remote districts, and the counties. Since a district is large (approximately 50–500 km^2/20–200 square

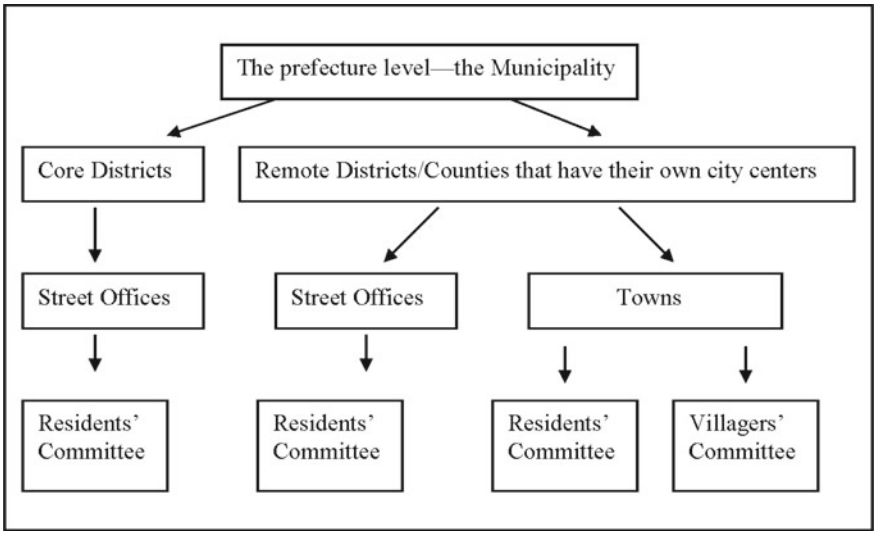

Fig. 7.3 The governmental structure of the municipality in Socialist China and after. *Source* Adapted from Hsing (2010)

miles), only the very large cities such as Beijing, Shanghai, Guangzhou, Wuhan, etc., have core districts that are completely urbanized. The district/county is often large enough to contain agricultural land and an agricultural population. Towns and street offices are governments at the same level supervised by the district government. Towns normally have rural farmlands while street offices are purely urban.

Where did suburban development occur in Mao's China? China's formal geopolitical maps portrayed in Figs. 7.1 and 7.2 contained no suburban governmental entities. However, suburban development did take place in city peripheries, outside either a large prefecture seat or a county proper. Many factories were constructed outside the former city proper. Residential compounds were also built; before the Economic Reform, they were located inside a factory or work-unit, as the essential part of the Socialist work-unit culture. This type of suburban development should be categorized as incremental urban expansion instead of "suburbanization." Since both the prefecture seats and the small counties controlled their surrounding agricultural or other natural areas, the newly developed suburban environments were integrated into the city and the whole region.

7.3.3 Metropolitan Reality in Contemporary China

Suburban development has escalated sharply since the late 1980s. Many commodity condominiums have been constructed in the suburbs—outside the old city proper but within the city district in most Chinese cities. However, no district or county in

most Chinese municipalities has been completely urbanized (i.e., where all farming lands are urbanized and all peasants with agricultural *hukou* are transformed into urban residents), let alone the entire region or municipality. First, the district or county is very large, approximately 50–500 km^2 (20–200 square miles). The municipalities are even larger, approximately 2000–20,000 km^2 (770–7700 square miles). The average municipality area for Hubei's 13 prefectural cities/municipalities, for instance, is 13,515 km^2 (5218.2 square miles). A municipality is a huge integrated region under a powerful municipal government. Second, the agricultural population in the district and the municipality still outnumbers its urban population, except in some megacities like Beijing, Shanghai, Shenzhen, etc. (NBSC 2011). Although the urban population in China already exceeds the rural population, the rural population within the municipality will not be completely transformed into urban dwellers even in Beijing and Shanghai.

Keeping the historical analysis in mind, the question "What is the Chinese suburb?" can be reexamined. Zhou and Ma (2000) define the Chinese suburb as corresponding to the political boundary—inner suburbs are inner suburban districts—while outer suburbs are outer suburban districts. Feng et al. (2008) also equate suburbs to district-level territories. However, after situating the Chinese suburb in its historical pattern (Fig. 7.2) and contemporary political structure (Fig. 7.3), it is clear that suburbs cannot be equated to district-level geopolitical territories. In other words, the first meaning of suburb offered in Sect. 7.2 is inaccurate in contemporary China. It only makes sense geographically, or directionally, because it equates suburb to any place and/or district outside the city center. From the functional perspective, it is too broad. It also refers to places/districts which are not suburbs at all.

City districts, inner suburban districts, and outer suburban districts/counties are political territories at the same level supervised by the municipal government located in the city core. Historically, the prefecture had only one *zhifu*, who directly took charge of the prefecture seat and indirectly supervised the remote counties. In contemporary China, a district-level government that directly takes charges of the former prefecture seat is separate from the municipal government. For most municipalities in China (except megacities having a population of more than 8 million), there is only one core district which is the seat of the municipality, a result of the tradition of centralism. The core is big enough to encompass its suburban development. The suburbs developed on the core district's agricultural land are located outside the city proper but within the core district's political territory. They have not penetrated, and probably will not invade, into the remote counties. Remote counties, on the other hand, are not suburbs of the core district. They have their own history and economic base (A and B in Fig. 7.2), and they even have their own suburban communities (dark squares in Fig. 7.2). In this regard, Fig. 7.2, which represents China's historical metropolitan pattern, perfectly portrays the metropolitan pattern of most contemporary Chinese municipalities. All 12 municipalities in Hubei, a typical provincial in central and east China, can be analyzed by Fig. 7.2 except the province capital, Wuhan (it has seven core districts and six remote districts/counties accommodating 10 million people). In this sense, China's suburb is a subdistrict concept. In most municipalities, except megacities, talking about the municipality

geographically is too large in scale. We have to lower the scale to the district/county level. Only at this scale can we achieve an appropriate definition of the Chinese suburb. *The suburb*, in most contemporary Chinese cities except megacities, *is the subdistrict-level neighborhood outside a city/district/county center which is mainly residential and accommodates a large number of previous urban residents and well-off migrants who work in that city/district/county and newly own a suburban home in that city/district/county*. In most non-megacity Chinese cities, there are more locals than migrant workers. Furthermore, most migrant workers are from the villages within that district/county.

7.3.4 Metropolitan Reality in Contemporary China's Megacities

As mentioned directly above, *the suburb in China*, generally, can be defined as *a place that is outside the city/district/county center but is well integrated into and governed by the city/district/county*. It can be an area, a neighborhood, or a gated community. The pattern established so far, however, does not fit the megacities such as Beijing, Shanghai, Guangzhou, Shenzhen, Tianjin, Wuhan, and so on.

For big municipalities, the metropolitan pattern is more complex. For example, Beijing has two core districts, four inner suburban districts, and ten remote districts/counties in 16,800 km^2 (6486.5 square miles), hosting 21.2 million people (Beijing Statistics Bureau 2013). Traditionally, Beijing's metropolitan pattern was not unlike other Chinese cities. The two core districts formed the old city while the remote counties were far from the city. The incremental development after 1949, however, connected the core districts with their four nearby districts. The so-called market-led suburbanization further bypasses the four adjacent districts and moves to the remote districts/counties. As shown in Fig. 7.4, Beijing comprises two inner city districts (1 and 2) and four inner suburban districts, with six outer suburban districts surrounding the inner suburban districts. The two diamonds represent two districts that were *zhou* in the Ming Dynasty. The two circles refer to two counties that were walled cities at least from the Ming Dynasty.

For Beijing, the so-called inner suburban districts are not "suburbs," neither historically nor currently. Historically, they were the countryside of the capital city. For instance, in the Qing Dynasty (1644–1911 AD), the northwestern part had some summer palaces and parks for the emperor. After 60 years of continuous development since 1949, the inner suburban districts are now high-density areas, characterized by mixed uses—commercial areas, office towers, residential middle—and high-rise buildings, and light or heavy industrial factories, which are all intertwined. Although large inner suburban districts like Haidian and Chaoyang still have peripheral farmlands and green belts far away from the city center, the areas adjacent to the core districts have been completely urbanized. Thus, the difference between the inner city (the core districts) and the inner suburbs makes sense only in a geopolitical map.

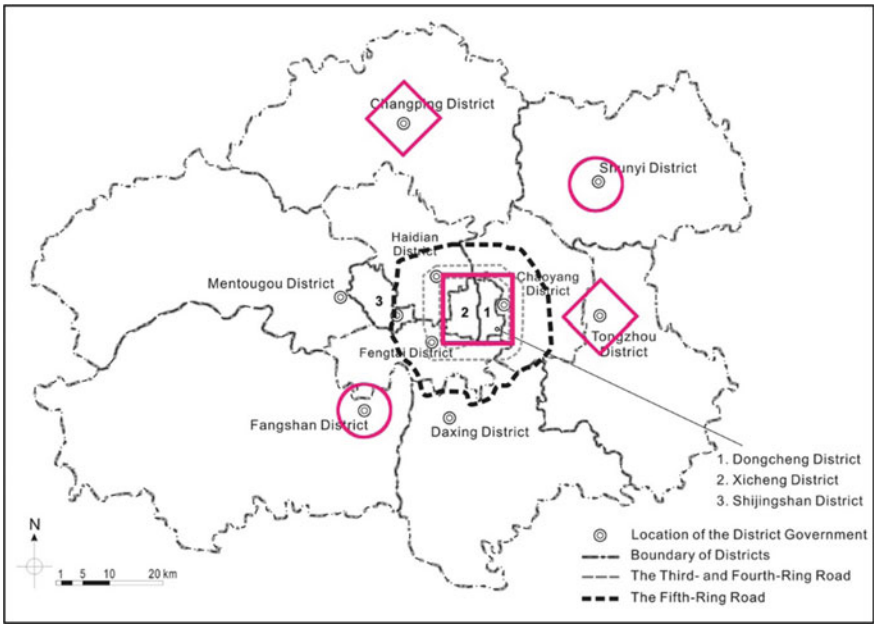

Fig. 7.4 The spatial layout of the Municipality of Beijing excluding its four northern suburban districts/counties. *Source* Adapted and edited from Beijing Statistics Bureau (2013)

No one who walks or drives in Beijing from the core districts to Haidian or Chaoyang can be aware that they are passing from the city to "the suburb." They are still in the city! The inner suburban districts in Beijing (similar to Jersey City in New York City metropolitan region) are too urban and too mixed-use to be suburbs.

Are the so-called outer suburban districts suburbs? Historically, they were walled cities that had their own suburbs and countryside. In Fig. 7.1, Changping and Tongzhou were two zhou (◊), while Fangshan and Shunyi were two counties (○). In contemporary Beijing, the outer suburban districts still have their independent urban centers, although researchers of China's "suburbanization" often underestimate this fact. The outer suburban districts have lower densities than the city center and the inner suburban districts. If a person drives from Haidian to an outer suburban district Changping, they can easily perceive the difference because the periphery of Haidian and Changping is farm and forest land. But they will be puzzled again as soon as they enter another city, a smaller city with a high-density district center which has its own history and crowded streets. In this regard, an outer suburban district in Beijing as a political and geographic territory contains many different land uses—the district/county core, its own small towns, and rural lands. It is another city that has its own suburbs instead of the core district's suburb.

The complex realities of the district-level governments and the existence of the powerful municipal government justify the Beijing Municipal Commission of Urban Planning's (BMCUP) avoidance of the term "suburb." The BMCUP (2005) uses

fancier terms to define Beijing's districts: Core Districts of Capital Function (equal to Zhou and Ma's Core), Urban Function Extended Districts (equal to Zhou and Ma's inner suburbs), New Districts of Urban Development, and Ecological Preservation Development Districts (equal to Zhou and Ma's outer suburbs). Suburbs have no places in this hierarchical system. Instead, they are described as new cities, new satellite cities, and new towns. The rationale of BMCUP's newest master plan (2005) is to overcome the conflicts between the city core and other areas while providing the municipal government with the greatest power to integrate the whole region.

Although the idea and plan to maintain an integrated region via current district division is well propagated and pursued, the reality does not fit the plan very well. The "suburbs" in China's megacities have indeed been produced in the last 20 years. They are no longer informal communities or markets (dark squares in Fig. 7.2). They have become huge and now penetrate into the remote counties. The established districts cannot appropriately host the newly constructed suburban communities, although they attempt to incorporate these suburbs into the current political structure. Many huge suburban communities built in Beijing's remote counties (Changping, Shunyi, Daxing, etc.) or joint areas between an extended district and a remote district/county (Changping and Haidian, Changping and Chaoyang, etc.) are not the suburbs of any specific districts. They are the suburbs of the core districts or the extended districts, if we use BMCUP's terms, or, from the residents' perspective, they are the suburbs of Beijing. Tiantongyuan, the largest residential community politically governed by a township in Changping, accommodates more people than the traditional Changping County proper. Another residential community with the same size is under construction in Changping. And more giant gated communities are under construction in Fangshan, Daxing, and Tongzhou. Few residents in these suburban communities work in the local districts, and the majority have to commute to the city center or extended urban districts for work and entertainment. Thus, the newly built suburban communities are more Beijing's suburbs than the local counties or the towns' residential areas. *The suburb in China's megacities*, therefore, can be defined as *the super-big community that is built outside of the core district or in the remote county but accommodates the population for the entire municipality instead of the district or county in which it is located*. In China's megacities, suburbanites are mostly successful businesspeople, well-off migrant workers, and hardworking university graduates without a local household registration (or *hukou*) in those major cities. The demographic composition in megacities' suburbs is dramatically different from that in smaller Chinese cities. The metropolitan pattern of China's megacities is shown in Fig. 7.5.

The three concentric rings in Fig. 7.5 have several local/district governments at the same level. The first ring captures the city districts (core districts). The second ring includes four inner suburban districts with towns on their peripheries. The third ring includes six outer suburban districts which have their own district core (A–F) in the center and towns on their peripheries. Gated communities (S) in these towns are more like Beijing's suburbs than local residential areas.

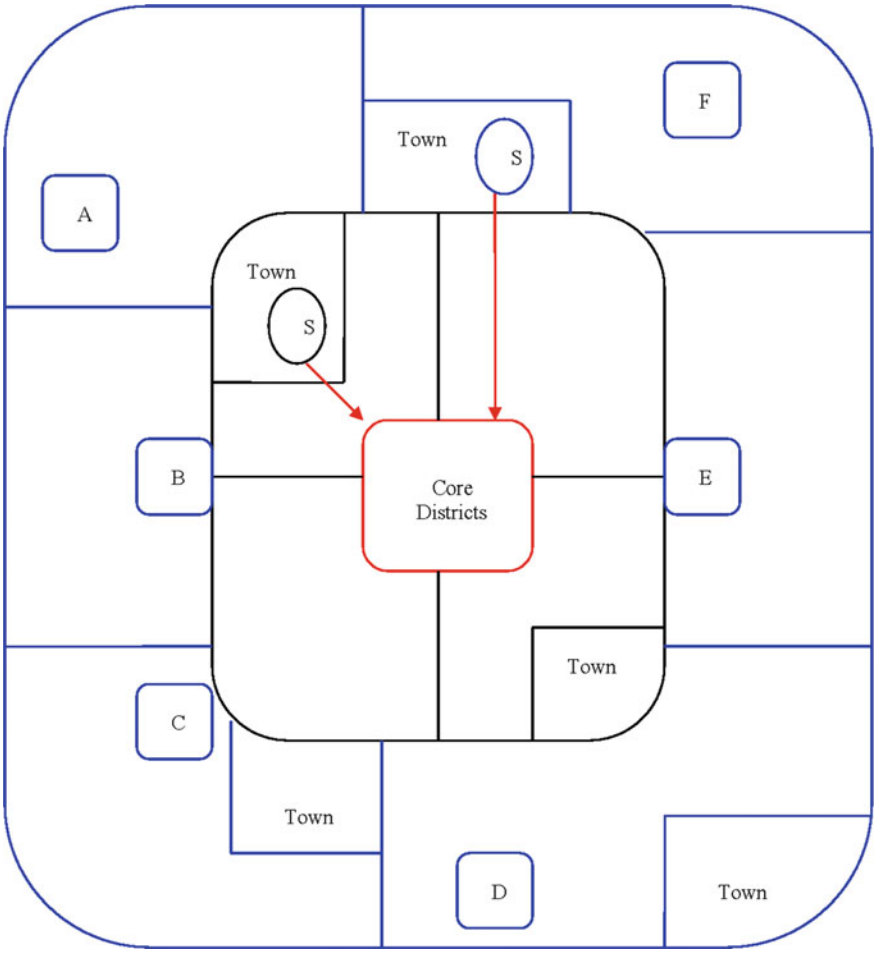

Fig. 7.5 The metropolitan pattern of China's megacities/mega-municipalities. *Source* Extrapolated from Fig. 7.4

7.4 Residents' Perceptions of China's Suburbs and Their Suburban Everyday Life

The last section discussed the geographical and topological production of China's suburbs. But the discussion focused on one type of suburb—the more formal one. What about rural–urban fringe zone? How has it been produced during China's rapid urbanization and suburbanization processes? The answer is a little surprising. Rural–urban fringe zones have not been produced; rather, they grow because they lack formal development. They become significant because they have been left alone or left behind. When major suburban development projects and urban

redevelopment projects transform China's urban and suburban landscape, rural–urban fringe zones become the gray areas. Thus, the process creates a strange reality (Fu and Chen 2010).

Consequently, people who live in China's contemporary urban fringe face two sets of realities. For suburbanites who live in formal and "high-end" suburban gated communities, their place identity is unambiguous. They state that they live in "a suburb" or "a suburban community" without conceptual confusion and hesitation. However, for suburbanites who were forced to move into their current suburban community, they conceptually agree that their neighborhood is in "a suburb" but they personally do not want to accept the fact that they are actually living in a suburb. For residents in rural–urban fringe zones, there are confusions and hesitations both conceptually and personally.

7.4.1 How Suburbanites in Formal Suburban Gated Communities Perceive Their Living Environment

As mentioned earlier, two major groups of people live in China's formal suburbs—the previous city residents who have strong place attachment to the "city," and well-off homeowners who were born in other parts of China or rural parts of that city. This distinction between local and nonlocal still matters in contemporary China (Chan 1996; He 2013). At least in megacities, a household registration (*hukou*) is still precious and offers many benefits—educational, social, and even psychological goods.

Former city locals who were forced to move to suburbs because of city redevelopment projects did not move to the suburb of their own free will. Most interviewees for this study who were forced to move to Beijing's suburbs are uneasy that "they are currently living in a suburb." Conceptually, they all agree that they live in a suburb, in a suburban community in either North Beijing or South Beijing. Here, "suburb" does not refer to an entire remote district/county in the Municipality of Beijing. It is a suburban community or a suburban neighborhood outside Beijing's core districts, as defined in Sect. 7.3.4. The previous city locals who were interviewed were not willing to accept that they were suburbanites. Although they no longer have a residence in the city center, many of them still keep their *hukou* in the city, just to remind themselves psychologically and symbolically that they are still real Beijingers.

When I asked a well-dressed woman in her middle 50s how she thinks of her current living environment, her immediate reply was very dramatic:

> Ai-you (Oh-ah). What a thing! What do you want to know? I don't have any good feelings about this place. I was cheated to move here. Now I can't do anything to change that.

This woman was not exaggerating her personal perception about a suburban community in South Beijing. Other former city residents showed similar uneasiness about how their current living environment influences them on a daily basis. However, they

are unable to move back to the city center, because they cannot afford a housing unit in the city center once they have been relocated to a suburban housing unit.

Some former urban residents have more than one housing unit, and they have no problem accepting their suburban home conceptually and personally. This group of former urban residents often live in more expensive suburban communities, alongside well-off suburban homeowners who were born in other parts of China. They share a local identity with the group just discussed, but their attitude toward the suburban environment is much more positive. They enjoy the green space inside their suburban community, the convenient amenities around it, the nice restaurants outside the community, and the regional supermarkets. They all have cars to drive back to the city whenever they wish. Based on all these amenities, the residents have nothing to complain about regarding the physical environment.

Another group who live in China's formal suburbs is the most active group. They are eager to express their identity as suburban property owners and willing to defend their rights when necessary (Read 2008). Their suburban home is often their only home in that city. They identify themselves as suburban homeowners who work and live in the municipality, although they may not yet (or ever) have a household registration (*hukou*) in that city. All suburban homeowners I interviewed in Beijing not only agreed that they live in suburban Beijing, but they are also proud of their status as suburban homeowners. Mr. Zhou, a chief editor of a top Chinese magazine in his late 30s, thinks his community in South Beijing is the exemplary community in the surrounding area. Figure 7.6 shows a modern high-rise apartment in a suburban gated community in Beijing. Thousands of this kind have been copied in suburbs all over China.

Everyday life in suburban Beijing, however, is quite problematic. Although many suburban gated communities look clean and beautiful, a very important human element is lacking—street life. Both the streets in suburban Beijing and the space inside gated communities are too limited for meaningful social interaction (Li 2017).

7.4.2 How Residents in Informal Urban Fringe Areas Perceive Their Living Environment

The rural–urban fringe in contemporary China is a "hodgepodge." Although scholars (Zhang 2001; Fu and Chen 2010) categorize it as "rural–urban fringe zone" or "urban village," people who live and work there cannot give a unique name or categorization for their own living environment.

The rural–urban fringe is physically closer than the suburbs to the city center. In Beijing, for example, urban villages are located mostly between the fourth ring road and the fifth ring road, as shown in Fig. 7.4, while most giant suburban gated communities are outside the fifth ring road. My interviewees who live and work in the rural–urban fringe areas provided multiple names for their place (Fig. 7.7).

Fig. 7.6 A modern high-rise apartment in a suburban gated community in Beijing. *Source* Photo by the author, 2015

Locals who grew up in those areas and work there think their place is still a village, since the political organizations in the areas are still Villagers' Committees. Locals' daily lives are heavily influenced by this formal political structure—school, housing, medical welfare, job finding, marriage, and so on. Nonetheless, when I asked "Do

Fig. 7.7 An urban village between Beijing's south fourth ring road and south fifth ring road. *Source* Photo by the author, 2014

you think your place is a rural–urban fringe zone, an urban village, a suburb, or something else?" they mostly replied, "Yes, yes, it is called a 'rural–urban fringe zone'. We were taught to categorize it in that way at school."

Outsiders, however, have a more mixed perception of the place. In reality, in all rural–urban fringe areas, outsiders outnumber locals. They rent locals' homes, run retail or wholesale stores, restaurants, beauty salons, hotels, anything that can make a living. All my interviewees had been working in the various rural–urban fringe areas for more than 5 years. Yet they cannot name the place with a clear, unique geographic notion. A young man in his early 30 s had been a delivery person in a wholesale rural–urban fringe zone for more than 10 years. He did not think of the whole area as a village, although its official name is a village:

> It is a wholesale zone. It is not a village, absolutely not.

Interviewer: Is it a suburb? A rural–urban fringe zone? An urban village? Or something else?

> I don't know. To me, it is just a wholesale zone. I live in a village nearby, however.

Another man, an unlicensed taxi driver, thinks that "his living area is just a village. It is called as a village. And it is as backward as a village." Although I kept

reminding my interviewees that there was no farmland in the area at all, some of them still claimed that their living and working place is a "village"—a special, busy, but backward village in Beijing.

A hodgepodge living environment contains a hodgepodge of lifestyles. Most residents in rural–urban fringe areas are migrant workers. Although they have been living close to the center of Beijing for several years, some of them even do not know exactly where they are in the city. They do know how to go to the railway station to go back to their hometown. Locals, although they have become the minority in the rural–urban fringe areas, are the real winners. Their living environment may become worse year after year, but they have significant rental income. And most of them have formal apartments somewhere nearby, in the city, or in the formal suburb, based on their financial power. And those migrant workers who make a good living as (for example) a wholesale boss or a hotel owner have or plan to have a formal suburban apartment in Beijing, outside the hodgepodge where they have made their own fortune in the first place. They are, or will soon be, one of the suburbanites discussed in Sect. 7.4.1.

7.5 Concluding Remarks

The recent urban expansion and suburban developments in China have created and reshaped two major types of urban fringe—formal suburban communities and rural–urban fringe hodgepodges. These two radically distinctive built environments are perceived differently by their residents and offer distinctive ways of life.

Regionalism is the key to understanding the Chinese suburb. Many suburban communities developed in the last 20 years are within the city/district territory, although they are outside the traditional city core that evolved from the walled city. Suburban life is an integrated part of urban life, although many suburbs are geographically far away from the city center. Suburbanism is merely a part of urbanism, because suburbia does not (and probably will never) create an independent way of life that is different from urbanism. On the one hand, the city—at the district level, not the municipal level, as a county or *zhou* governed its surrounding areas in the imperial period—still takes charge of the suburban communities culturally, economically, and politically nowadays. On the other hand, in the cases of megacities like Beijing, Shanghai, and Guangzhou, in which the suburbs are produced on a massive scale, the suburban developments in the remote districts/counties have produced suburbs of the municipality, rather than the district/county level city. Although the suburb produced in these cases is larger than the remote district to which it is subordinate, it is perfectly integrated into the region or municipality and can never bypass the municipal administration to form its own government. Different groups of suburbanites perceive the newly built suburban environment differently. To the former city residents who were forced to move to a suburb, the "city" is forever their home although they have no real standing in the city core anymore. Well-off groups have more positive perceptions to the suburban living environment, although China's brand-new

suburban gated communities have or will soon have many social problems (arising from lack of social interaction and lack of mixed-use zoning).

The rural–urban fringe zone, on the other hand, has been left behind. Compared with the suburb, it is physically closer to the city. Yet socioculturally it is distanced from the city. Its existence is highly related to China's metropolitan regionalism. An urban village, no matter how large and rich it is, is still a village within a district of a municipality and is unlikely to be a voice for policy change at the municipality level. Thus, it has been developing in a more incremental and spontaneous way. The spontaneous development of China's urban village is not the beautiful spontaneity of smallness praised by Jacobs (1961). Rather, it is a chaotic hodgepodge. Without careful replanning that considers multiple stakeholders of the rural–urban fringe zone, including local governments, locals, business owners, migrant workers, and regional government bodies, the living environment of the hodgepodge will continue to worsen. Its residents, as a result, will continue to be confused by its status, or, alternatively, they will just stop pondering the identity of their living environment.

Neither of these two types of Chinese suburb echoes the suburb in the West. The Chinese suburb does not (and probably will never) have the right to be incorporated into an independent jurisdiction. By subordinating to a district or an entire municipality, China's suburbia is an integrated part of China's urban system, which does not (and probably will never) support an independent suburban way of life.

References

Beijing Statistics Bureau. (2013). *Beijing statistical yearbook 2013*. Beijing: The Press of Chinese Statistics (in Chinese).

BMCUP. (2005). Beijing Municipal Commission of Urban Planning. *Municipality master plan for Beijing (2004–2020)*. Beijing: BMCUP (in Chinese).

Chan, K. W. (1996). Post-Mao China: A two-class urban society in the making. *International Journal of Urban and Regional Research, 20*(1), 134–150.

Fang, K. (2000). *Contemporary conservation in the inner city of Beijing: Survey, analysis and investigation*. Beijing: Chinese Architecture and Building Press (in Chinese).

Fang, Y. (2006). Residential satisfaction, moving intention and moving behaviors: A study of redeveloped neighborhoods in inner-city Beijing. *Housing Studies, 21*(5), 671–694.

Feng, J., Zhou, Y., & Wu, F. (2008). New trends of suburbanization in Beijing since 1990: From government-led to market-oriented. *Regional Studies, 42*(1), 83–99.

Fleischer, F. (2010). *Suburban Beijing: Housing and consumption in contemporary China*. Minneapolis: University of Minnesota Press.

Fu, C., & Chen, M. (2010). The research progress about China's rural-urban fringe zone. *Progress in Geography, 10,* 1525–1531 (in Chinese).

Guo, H., & Jin, R. (2007). *The history of the administrative divisions, the Ming Dynasty*. Shanghai: Fudan University Press (in Chinese).

He, S. (2013). Evolving enclave urbanism in China and its socio-spatial implications: The case of Guangzhou. *Social and Cultural Geography, 14*(3), 243–275.

He, S., & Wu, F. (2007). Socio-spatial impacts of property-led redevelopment on China's urban neighborhoods. *Cities, 24*(3), 194–208.

Hsing, Y. (2010). *The great urban transformation: Politics of land and property in China*. Oxford: Oxford University Press.

Jacobs, J. (1961). *The death and life of great American cities*. New York: Vintage Books.
Liji Wangzhi. (n.d.). *The book of rites*. Retrieved from http://ctext.org/liji/wang-zhi/ens (in Chinese and English).
Li, P. (2017). *Making the gigantic suburban residential complex in Beijing: Political economy processes and everyday life in the 2010s*. Retrieved from CUNY Academic Works.
Li, S., & Song, Y. (2009). Redevelopment, displacement, housing conditions, and residential satisfaction: A study of Shanghai. *Environment and Planning A, 41,* 1090–1108.
NBSC. (2011). National Bureau of Statistics of China. *The report of the sixth national census in 2010*. Retrieved from http://www.stats.gov.cn (in Chinese).
Read, B. L. (2008). Property rights and homeowner activism in new neighborhood. In L. Zhang & A. Ong (Eds.), *Privatizing China: Socialism from afar* (pp. 41–56). Ithaca and London: Cornell University Press.
Wu, F. (2004). Residential relocation under market-oriented redevelopment: The process and outcomes in urban China. *Geoforum, 35,* 453–470.
Wu, F. (2010). Gated and packaged suburbia: Packaging and branding Chinese suburban residential development. *Cities, 27,* 385–396.
Zhang, L. (2001). *Strangers in the city: Reconfigurations of space, power, and social networks within China's floating population*. Stanford, CA: Stanford University Press.
Zhang, L. (2006). Contesting spatial modernity in late-socialist China. *Current Anthropology, 47*(3), 461–484.
Zhang, L. (2010). *In search of paradise: Middle-class living in a Chinese metropolis*. Ithaca and London: Cornell University Press.
Zhang, Y., & Fang, K. (2004). Is history repeating itself? From urban renewal in the United States to inner-city redevelopment in China. *Journal of Planning Education and Research, 23*(3), 286–298.
Zhou, D., & Gao, C. (2001). A study of communities in rural-urban fringe zone: The transformation of Guangzhou's Nanjing village in the last 50 years. *Sociological Studies, 4,* 99–108. (In Chinese).
Zhou, Y., & Logan, J. R. (2008). Growth on the edge: The new Chinese metropolis. In J. R. Logan (Ed.), *Urban China in transition* (pp. 140–160). Oxford: Blackwell Publishing.
Zhou, Y., & Ma, L. J. C. (2000). Economic restructuring and suburbanization in China. *Urban Geography, 21*(3), 205–236.

Chapter 8
Moving from Rural to Urban: Urbanization and Its Implications for Educational Equality and Equity in China

Ming Yin

Abstract Rapid urban growth in China threatens sustainable development because policies and infrastructure have not developed to ensure that the promised benefits of city life are shared equitably. In this vein, educational equality and equity in China are unavoidably influenced by urbanization and the broader pro-urban and pro-costal development model. This chapter places the debate on educational equality and equity within the context of rapid urbanization in China. The consequences of urbanization, such as rapid urban expansion and marginalization, together with the effects of the rural–urban dichotomy, have challenged equal and equitable educational opportunities and attainment. Through the lenses of educational investment, quality school enrolment, the examination system, and private tutoring in education, the chapter identifies and discusses multiple educational disparities. Amid rapid urbanization and demographic mobility, the lack of inclusive urban communities and quality schools are fundamental reasons for China's educational disparities.

Keywords Economic development · Educational equality and equity · Urbanization

> Kids in the rural regions are at a huge disadvantage. Teachers and schools are under-resourced … The other issue is that in the rural regions, there's a lot of movement so parents move to the cities leaving their kids behind in the schools. So there isn't that parental support and guidance that kids need to thrive. Rural schools are under a lot of cultural stigma. No one believes they will succeed. (Pasinatti, cited in Stout 2013 December 17)

M. Yin (✉)
Graduate School of Arts and Sciences, Washington University in St. Louis, Campus Box 1183, St. Louis, MO 63130, USA
e-mail: mingyin@wustl.edu

B. Grant et al. (eds.), *Metropolitan Governance in Asia and the Pacific Rim*,
https://doi.org/10.1007/978-981-13-0206-0_8

8.1 Introduction

Since the mid-1980s China's economic growth has seen rapid urbanization provide the labor, land, and infrastructure to lift half a billion people out of poverty (UN 2014). All Millennium Development Goals have been achieved or are within reach (UNICEF 2015). The rapid economic growth and urbanization will see approximately one billion people, up to 70% of the Chinese population, living in cities by 2030 (The World Bank 2017). Yet despite the acknowledged advantages of cities and the urbanization process generally, urban areas are more unequal than rural areas, and hundreds of millions of the world's urban poor live in substandard conditions (UN 2014). China remains a developing country with the world's second largest number of poor, after India (UNICEF 2015). To compound these difficulties, China's market reforms are considered incomplete (UN 2014), and the effects of urbanization, such as labor migration, urban population expansion, and marginalization, can adversely affect many new city dwellers' lives.

Equitable educational opportunity for their children is just one of many challenges that face newly urbanized citizens (UNICEF 2015). This study focuses on impacts and implications of urbanization on educational equality and equity. Equality is defined here as the degree of quantitative dispersion of results of academic outcomes and performance, while equity is considered to be a normative concept meaning fair opportunity (Fry 1983). This chapter identifies and discusses multiple educational disparities, using the lenses of educational investment, quality school enrolment, the examination system, college entrance procedures, and private tutoring. It illustrates educational stratification and polarization using mainstream newspaper reports, and recommends significant policy adjustments to achieve educational equality and equity to contribute to sustainable economic development in China.

8.2 Theoretical Framework

8.2.1 Educational Equality and Equity

In common with the work of Fry (1983), Fend (1974) defines contemporary education from the perspectives of both equality and equity: education is expected to maximize the capabilities of children, prepare students for active citizenship, allocate students to the labor market, and offer equal opportunities for all citizens, regardless of socioeconomic background or status. However, scholars have presented ample evidence that contemporary education is more likely to reproduce social class differences and disparities, rather than equality and equity (Bourdieu and Passeron 1977; Sharkey 2008, 2012a, b; Sampson et al. 2008; Sharkey and Elwert 2011). The terms "equity" and "equality" are frequently used interchangeably, but they are quite distinct (Bronfenbrenner 1973). Using income and wealth as examples, Bronfenbrenner (1973) further argues that "the equality of a distribution of income or wealth is basi-

cally a matter of fact and is, therefore, basically objective; the equity of the same distribution is basically a matter of ethical judgment and is, therefore, basically subjective" (p. 9). In a case study of the Thai education system, Fry (1983) explicitly distinguishes these two concepts: "equity is considered to be a normative concept connoting fairness, and does not necessarily imply equality of results nor inputs; with respect to equality, it refers specifically and strictly to the degree of quantitative dispersion for a particular empirical indicator, with zero dispersion indicating perfect equality" (p. 200). This chapter uses these definitions to distinguish between educational equality and equity.

8.2.2 Urbanization and Education

Today, over half of the world's population (54%) live in urban areas (UN 2014; Yeakey et al. 2012). Social scientists (Blau and Duncan 1967; Causa and Johansson 2011; Yeakey et al. 2012) have advanced theories of long-term trends in industrialization and urbanization among industrial nations. Lipset and Zetterberg (1959) argue that a certain level of industrialization facilitates the sudden transformation of industrial and occupational structures, which leads to an increased rate of urbanization. This change can have positive consequences, including access to social, political, economic, and cultural opportunities. Vibrant and innovative urban centers are attractive for those seeking access to resources; industrial and economic centers support the scientific and technological advances that fuel economic growth, and educational and cultural resources support intellectual development (Yeakey et al. 2012). Consequently, many individuals migrate to urban areas in search of economic and cultural opportunities. Urbanization, defined as growth in population in urban areas, occurs in major urban agglomerations across the globe. In 2014, the United Nations identified the ten largest urban agglomerations as Tokyo, Cairo, New York, Shanghai, Osaka, Sao Paulo, Mexico City, Delhi, Shanghai, and Mumbai (UN 2014). The growth patterns in such agglomerations, both historically and projected, vary according to the particular industrialization processes.

The population density associated with urban centers produces challenges such as poverty, inequality, marginalization, limited resources, and insufficient social services (UN 2014). Cities are important drivers of development as they concentrate much of a nation's economic activity, government, commerce, and transportation, as well as providing crucial links with rural areas, between cities, and across international borders (UN 2014). More importantly, increasing globalization means that the impact of not addressing these challenges extends beyond geographical borders. China, in particular, has a high rate of urbanization, and how it overcomes the significant obstacles as it transforms its cities is critical to the future prosperity of both China and the rest of the world (Yeakey et al. 2012).

The role of education in addressing urbanization problems has been widely recognized (see Zhou et al. 2007; Wolff and Gordon 2008; Lu and Zhou 2013), yet educational disparities among urban residents remain significant (Yeakey et al. 2012).

Issues of educational disadvantage, underachievement, and resultant social immobility have led, in many instances, to an urban underclass, a challenge for the economic development of both the cities concerned and entire nations (Yeakey et al. 2012). Sustainable urbanization and development depend on an advanced and quality education system (Yeakey et al. 2012).

8.2.3 Capital Theory and Education

Several forms of capital are critical for a successful education: cultural capital (the advantages of belonging to the dominant culture; Bourdieu 1973, 1986; Lareau 1987), financial capital (the advantages of wealth; Haveman and Wolfe 1995; Ishida 2001), health and nutritional capital (the advantages of good health and nutrition; Bourdieu and Passeron 1977; Yu and Hannum 2007; Lu and Zhou 2013), human capital (the advantages of relationships with other people), and social capital (the advantages of belonging to social networks; Yu and Hannum 2007; Wu 2008; Lu and Zhou 2013). Differences in access to these forms of capital affect children's academic achievement and impact upon their educational opportunity. Dixon-Roman and Gordon (2012) suggest that intergenerational exposure to certain ways of thinking about the world enables some populations to better engage with the social capital available to them. Parents who are capital constrained cannot invest as much in education as can financially wealthy parents (Dixon-Roman and Gordon 2012). Parental poverty is also related to lower levels of good health, nutrition, and housing, all of which affect a child's development (Wolff and Gordon 2008).

Political leaders, on the other hand, believe that social problems, such as poverty, wealth polarization, and opportunity disparity, have little to do with broader issues of structural inequality (Hall and Midgley 2004). They argue that poverty and marginalization can be addressed when countries promote economic growth by creating free markets, attracting foreign investment and permitting entrepreneurs to pursue profits, while reducing government regulations and social services. Utilizing aggregated data from the World Bank, OECD, and the United Nations, this study argues that, apart from the traditional types of poor people in the cities, including the disabled, the chronically ill and the elderly, the "new poor", who have lost their jobs, failed in their businesses, or simply could not gather sufficient means to support their families (Yeakey et al. 2012) migrants could become invisible in the urban poverty profile and be easily neglected without institutional or structural assistance. This group includes the rural Chinese who have been migrating to city centers since the 1990s. Although the data used for this study contains limited information for providing narratives of microlevel units, it is still valid and reliable in terms of the study's analyses.

8.3 Socioeconomic Background and History of Urbanization in China

Before the People's Republic of China was established in 1949, the two main historical periods were Ancient or Premodern China (before 1912) and Modern China (1912–1949). Ancient China's culture emphasized agriculture and rural development and China became a world economic and technological leader, with its economic performance reaching a peak during the Song Dynasty (960–1271 AD; Zhu 2012). China's economic development then stagnated between 1500 and 1800, during which time Western Europe's per capita GDP increased steadily (Zhu 2012). Accordingly, China's urbanization rate fell far behind the West (Fig. 8.1).

China began its modern industrialization process around the turn of the twentieth century. Radical changes started to occur from mid-century, with three broad stages of the Chinese "revival" (Li and Piachaud 2004; see Table 8.1). The three stages are distinguished by their different development strategies: the central planning era (1949–1978); the market reform era (1979–2001), characterized by pro-urban and pro-costal policies which focused on industrial achievement with the state provision of various social services; and the market economy reform era (2002–present), which began to focus on poverty, particularly in rural areas, as well as further nationwide reform.

During the first stage, from 1949, China adopted a central planning strategy in an attempt to boost the growth of heavy industry in urban areas and recover from wartime destruction (Li and Piachaud 2004). From 1952, the China Communist Party (CCP) initiated a series of industrialization policies, including the "Five Year Plans." However, it has been argued that these plans created perverse incentives and resulted in the misallocation of resources. Zhu (2012) calculated the productivity at that time and found that labor productivity initially deteriorated and was only later offset by an increase in human capital measured in average schooling years. Furthermore, recurring food crises and a strict labor migration policy under *hukou* (a system of household registration required by law which originally prohibited

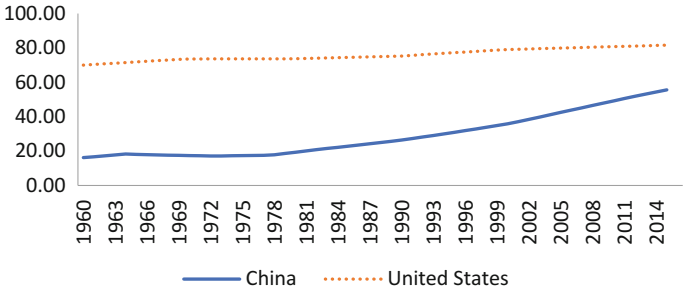

Fig. 8.1 US and China: Urban population (% of total) from 1960 to 2015. *Source* The World Bank (2017)

Table 8.1 Three stages of China's path to revival

	1949–1978	1979–2001	2002–Present
Paramount leadership	Zedong Mao	Xiaoping Deng Zemin Jiang	Hu–Wen Administration Xi–Li Administration
Economic growth strategy	Government-led industrialization. Heavy Industries (steel, concrete, and heavy machinery)	Market Reform Agriculture Sector Reform Ownership Reform	Privatization Trade Liberalization
Avg. GDP growth (%)	3	8	7–10
Social development	*Hukou* (household registration system)	Relaxed *hukou* policy	Massive rural-to-urban, west-to-east migration

Source Adapted from Zhu (2012)

interprovincial population flow for the purpose of demographic management) did not improve Chinese living standards (Zhu 2012).

Since 1978, China has adopted a series of reforms. In essence, it transitioned from a planned economy to a market-oriented economy, which fostered unprecedented rates of economic growth. The state gradually gave up direct control over state enterprises, and more diversified forms of ownership were introduced within the state sector (Zhu 2012). Some of the large-scale state-owned enterprises were converted into shareholding companies, with a majority of shares controlled by the state (Li and Piachaud 2004).

Given China's geographical size, the scale of its constituent provinces, and differences in their resource bases and economic positioning (Zhu 2012), China did not develop evenly, but followed particular strategies to catch up with the rest of the world. Administratively, the provinces, Autonomous Regions, municipalities, and Special Administrative Regions belong to different economic regions (see Fig. 8.2; Table 8.2). Party leaders generally applied Deng Xiaoping's reforming ideology to different administrative regions at different times, such as the designation of Special Economic Zones, where more free market-oriented economic policies and flexible governmental measures are more attractive for foreign and domestic investment (Zhu 2012) (Table 8.2), opening up the to the West (1999), the Northeast Strategy (2003), the Rise of the Central Region (2006), and most recently the Shanghai Free Trade Zone (2014). The gradual relaxation of *hukou* and incremental economic reform have generated great opportunities, especially for coastal cities. The result of these various reforms is an asymmetric pattern of urban centers, with sporadic urbanization in the western parts of the country and denser urbanization in the east, as seen in Fig. 8.3 (GeoCity 2013).

Special Economic Zones (SEZs) and some other designated economic development zones (EDZs), where administrative reform was undertaken to attract direct foreign investment, were later expanded into large urban centers, attracting an increas-

Fig. 8.2 Economic regions of China. *Source* National Bureau of Statistics (2013)

ing number of migrant laborers. Expansion of the manufacturing sector, thereby a pulling factor, absorbed numerous rural surplus laborers, expediting urbanization. The relaxation of the *hukou* household registration system encouraged farmers from remote areas to resettle in urban areas to help them escape the poverty trap (Li and Piachaud 2004). The number of rural migrant workers in the cities soared. By 2013, the number of migrant workers had grown to 262.62 million (National Bureau of Statistics 2013), roughly half of whom were working in urban areas (Table 8.3).

The market reforms initiated by Deng Xiaoping during the 1980s and 1990s also led to unprecedented urbanization and revival of the Chinese economy. In 2007, it had 670 cities, almost ten times as many as in the 1940s. Yet rapid urbanization is not only the result of migration from villages to cities. Importantly, it also comes about due to the expansion of small towns that are reclassified as cities. The urban population now exceeds the rural population (Fig. 8.4). In 2014, one measure of China's total income gross domestic production (GDP), (US$17.6 trillion, adjusted for its relatively low cost of living) assessed it as exceeding that of the United States (US$17.4 trillion); with China's share of the global economy (16.5%) also slightly bigger than that of the US (16.3%) (Gongloff 2014), and China transforming to one of the largest economies in the world.

Yet economic growth has been uneven across China, particularly among regions and provinces (Table 8.4). At the end of 2012, about 98.99 million people still lived

Table 8.2 Chinese economic zones (cities and provinces)

Type	City	Province
Special Economic Zone, City	Shenzhen	Guangdong
	Zhuhai	Guangdong
	Shantou	Guangdong
	Xiamen	Fujian
	Kashgar	Xinjiang
Special Economic Zone, Province	No city	Hainan
Coastal Development Areas	Dalian	Liaoning
	Qinhuangdao	Hebei
	Tianjin	Tianjin
	Yantai	Shandong
	Qingdao	Shandong
	Lianyungang	Jiangsu
	Nantong	Jiangsu
	Shanghai	Shanghai
	Ningbo	Zhejiang
	Wenzhou	Zhejiang
	Fuzhou	Fujian
	Guangzhou	Guangdong
	Zhanjiang	Guangdong
	Beihai	Guangxi

Source Adapted from National Bureau of Statistics (2013)

Table 8.3 Number of migrant workers in China from 2008 to 2013 (millions)

Migrant workers	2008	2009	2010	2011	2012	2013
Took their families with them	28.59	29.66	30.71	32.79	33.75	35.25
Left hometown alone	111.82	115.67	122.64	125.84	129.61	130.85
Did not do farm work for at least 6 months	85.01	84.45	88.88	94.15	99.25	102.84

Source Adapted from Statista (2013)

below the national poverty line of RMB 2300 (US$383) per year (The World Bank 2017).

In particular, rural migrant workers are now an important part of the urban workforce, but they remain discriminated against and marginalized in a number of ways (Mackenzie 2012). Although the policy of *hukou* has been relaxed, legal and regulatory environments still restrict migrant workers' ability to enjoy living and working in cities (Mackenzie 2012). Additionally, in large cities such as Beijing, Shanghai, and Guangdong, existing residents have enjoyed access to better housing, health,

Table 8.4 GDP in 2015 by province

Provinces	Rank	GDP in (RMB)	Nominal GDP (US$ billion)	Real growth (%)	Share of total GDP (%)
Guangdong	1	7281,255	1169,041	8.0	10.76
Jiangsu	2	7011,638	1125,753	8.5	10.36
Shandong	3	6300,233	1011,533	8.0	9.31
Zhejiang	4	4288,649	688,564	8.0	6.34
Henan	5	3701,025	594,218	8.3	5.47
Sichuan	6	3010,310	483,320	7.9	4.45
Hebei	7	2980,611	478,552	6.8	4.40
Hubei	8	2955,019	474,443	8.9	4.37
Hunan	9	2904,721	466,367	8.6	4.29
Liaoning	10	2874,339	461,489	3.0	4.25
Fujian	11	2597,982	417,119	9.0	3.84
Shanghai	12	2496,499	400,825	6.9	3.69
Beijing	13	2296,859	368,772	6.9	3.39
Anhui	14	2200,560	353,311	8.7	3.25
Shaanxi	15	1817,186	291,758	8.0	2.69
Inner Mongolia	16	1803,279	289,525	7.7	2.66
Guangxi	17	1680,312	269,782	8.1	2.48
Jiangxi	18	1672,378	268,508	9.1	2.47
Tianjin	19	1653,819	265,529	9.3	2.44
Chongqing	20	1571,972	252,388	11.0	2.32
Heilongjiang	21	1508,367	242,176	5.7	2.23
Jilin	22	1427,411	229,178	6.5	2.11
Yunnan	23	1371,788	220,247	8.7	2.03
Shanxi	24	1280,258	205,552	3.1	1.89
Guizhou	25	1050,256	168,624	10.7	1.55
Xinjiang	26	932,480	149,714	8.8	1.38
Gansu	27	679,032	109,022	8.1	1.00
Hainan	28	370,276	59,450	7.8	0.55
Ningxia	29	291,177	46,750	8.0	0.43
Qinghai	30	241,705	38,807	8.2	0.36
Tibet	31	102,639	16,479	11.0	0.15

Source National Bureau of Statistics (2015)
Note Nominal GDP is the gross domestic product (GDP) evaluated at current market prices

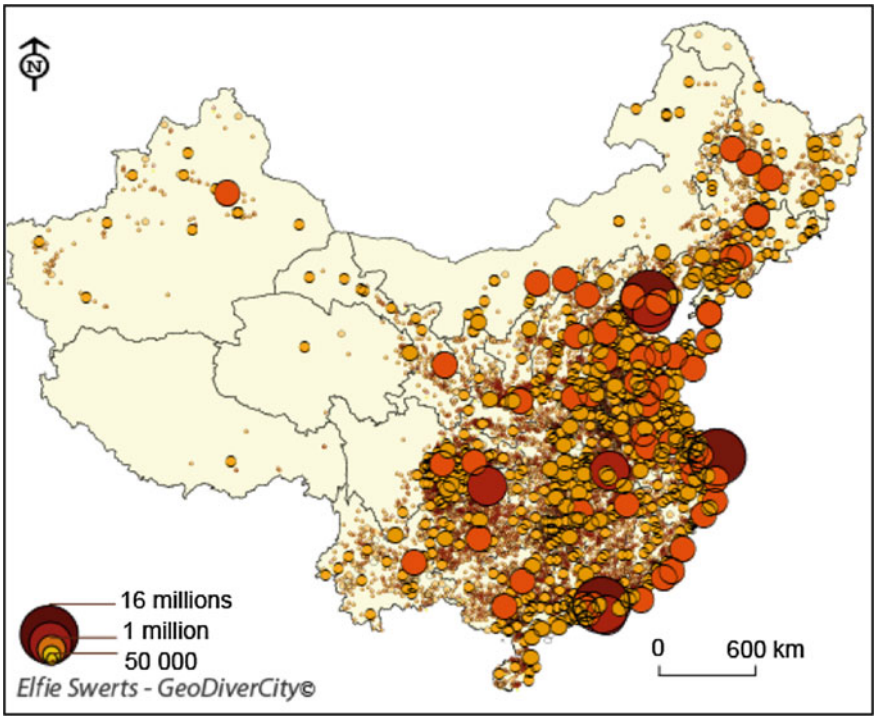

Fig. 8.3 Urban agglomeration in China in 2013. *Source* GeoCity (2013)

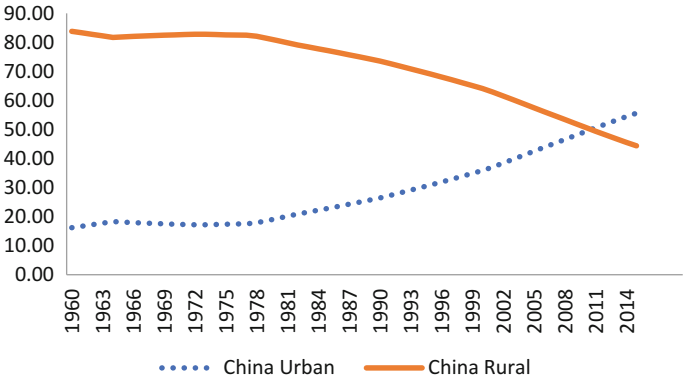

Fig. 8.4 China urban and rural population (%) from 1960 to 2015. *Source* The World Bank (2017)

education, and welfare systems (Lu 2002), and migrant workers' salaries are usually lower than their urban *hukou* counterparts (Fig. 8.5). Even the children of migrant workers, born and brought up in urban areas where their families do not possess urban *hukou*, are excluded from access to public services (Lu 2002). The experiences of

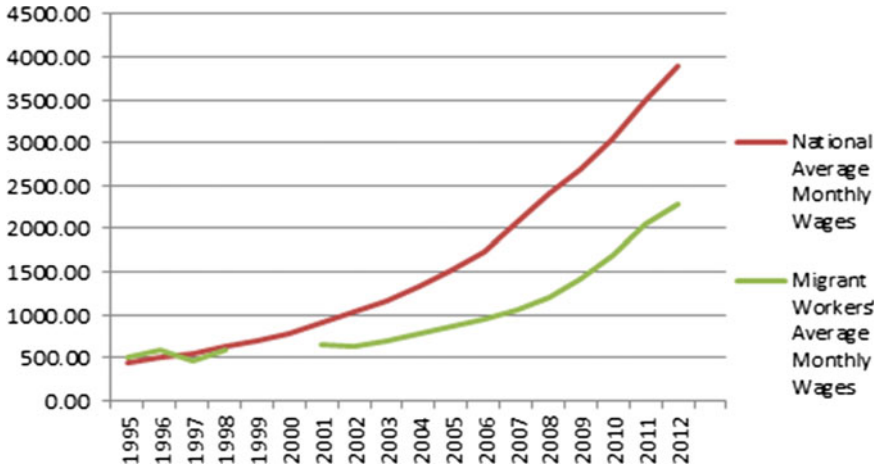

Fig. 8.5 Migrant workers' wages compared with national average (RMB). *Source* National Bureau of Statistics (2013)

rural migrant workers mirror the broader rural–urban relationships: the expansion of urbanization at the expense of both rural residents and farmland renders these populations the most vulnerable in China.

8.4 Urbanization and Its Implications for Education

8.4.1 Education in China

The Chinese basic and higher education systems were modeled on those of the former Soviet Union. Developed from the Communists' education campaigns before the establishment of the PRC and emphasizing mass education, the focus was on equity through providing primary school education to everyone (Li and Piachaud 2004). All higher education resources were controlled by the state, and very few senior high school students entered higher education institutions. The Chinese Governments initiated education reforms under Deng's leadership from the late 1970s to early 1990s, exemplified by the passage of the Compulsory Education Law in 1986, which made 9 years of government-funded elementary and junior high education mandatory for all Chinese children. China's education system today is similar to that of many other countries. Primary education commences around the age of six and extends to age 11, followed by 3-year mandatory junior and 3 years senior secondary education. After junior high school, some students might choose a vocational education track, while others continue an academic track and enter university (MOE 2015).

Between 2001 and 2012, the central government increased investment in education by 3.7 times in nominal terms, which was used to support educational reform and improve school infrastructure (UNICEF 2015). China's revised Compulsory Education Law in 2006 placed a new emphasis on balanced and equitable development to reduce disparities among regions and between rural and urban areas (UNICEF 2015). Higher education in China has also been transformed from elite to mass education with higher education expansion policies. The number of new entrants to higher education institutions skyrocketed between 1992 and 2010 (Table 8.5).

China has a long history of examination systems. The imperial examination, which was developed to select candidates for the state bureaucracies, lasted for about 1300 years until the early 1900s (Wu 2012). With the influence of this long-standing system and its associated subculture, examinations remain a critical issue today, attracting attention from parents, educators, teachers, students, and policy-makers. Admissions for key senior high schools (*zhongkao*) and colleges (*gaokao*) are extremely selective and competitive, especially the national college entrance examination (*gaokao*). In general, the competition starts from elementary school, where all students have to attain good marks to be able to gain admission into quality middle schools. Then, they have to excel in middle school examinations in order to be accepted into prestigious high schools. It is believed that prestigious high schools will better prepare students for *gaokao*, which will, in turn, facilitate their admission into prestigious colleges to study lucrative subject areas, such as finance and computer science, leading to promising careers (Shanahan 2011).

The current enrolment in basic education in China is at its highest ever. The primary net enrolment ratio increased over the past three decades to reach 99.7% in 2013, achieving the Millennium Development Goal for universal primary education in advance of the 2015 target (UNICEF 2015). However, high-quality education resources are still lacking and public education has always been underfunded. The 0.3% of children not enrolled accounted for significant numbers of primary school-aged children, most of them concentrated in poor rural areas of western and central China (UNICEF 2015). Nonetheless, gross enrolment in junior secondary education, which is covered under the Compulsory Education Law, also increased from 67% in 1990 to almost 100% in 2013, and is much higher than enrolment in senior secondary education (UNICEF 2015). About a million children of junior secondary school age are out of school, mainly migrant children who are left behind in rural areas by their parents and children living in the poorer regions of western and central China (UNICEF 2015). In order to be promoted into key senior high schools and key universities, Chinese students have to spend a lot of time and effort to prepare for

Table 8.5 College enrolments and new entrants from 1992 to 2010 (thousands)

	1992	1996	2000	2004	2006	2008	2010
New entrants	754	966	2206	4473	5461	6077	6618
Total enrolments	2184	3021	5561	13,335	17,388	20,210	22,318

Source Adapted from Li (2012)

zhongkao and *gaokao*. Entering good high schools or universities becomes the most important goal for many students' learning.

In the decades following the rise of the Chinese Communist Party in 1949, the previously existing private education system was dismantled and replaced by a centrally planned, state-run approach (Shanahan 2011). However, students often find that the education they receive in government-run institutions does not successfully prepare them for exams (Shanahan 2011). The lack of access to quality education in the Chinese education system has spurred the demand for supplementary enrichment education and a market for private education. An increasingly urban population, a growing per capita income, and the importance that Chinese culture places on education have facilitated the reemergence of private education (Shanahan 2011). Arguably, however, the expansion of private education has resulted in greater disparity between urban and rural, wealthy and poor populations, as access is directly associated with a family's socioeconomic position.

8.4.2 Educational Equality and Equity

China has made huge strides in educating its population. Universal primary and middle school education is a major policy goal of the country's educational development program and a fundamental national strategy in improving China's human development (Zhou et al. 2007). However, research has long shown that rural–urban and west–east dichotomies determine educational attainment (Zhou et al. 2007), educational opportunity (Li and Piachaud 2004; Gao 2014), and intergenerational occupational mobility (Wu and Trieman 2003), which together are indicative of educational stratification by geography in China (Hao and Woo 2012). Differences in educational provision, accessibility, and quality result from unequal rural–urban resource allocation and educational expenditures (Hannum 1999; Zhang and Kanbur 2005). The decentralization of administration and management of basic education in China gives local governments more freedom but also increases interprovincial disparity because county governments in poor areas have limited capacity to provide resources (Zhou et al. 2007). Rural areas are generally poorer than urban areas, and so rural schools face greater financial burden to offset the lower funding from the county departments of education (Hao and Woo 2012). While many of their urban peers attend schools equipped with state-of-the-art facilities and well-trained teachers, rural students often huddle in decrepit school buildings and struggle to grasp advanced subjects such as English and chemistry amid a dearth of qualified instructors (Stout 2013). Teachers' academic credentials vary significantly among areas and regions because of limited funding (Qian and Smyth 2008); most rural and western area teachers obtain their qualifications through unofficial training, or lack any type of relevant qualifications. Andrea Pasinetti, a teacher in the Teach for China program, noted the disadvantages faced by many rural students:

> Kids in the rural regions are at a huge disadvantage. Teachers and school are under-resourced…. The other issue is that in the rural regions, there's a lot of movement so parents move to the cities leaving their kids behind in the schools. So there isn't that parental support and guidance that kids need to thrive. Rural schools are under a lot of cultural stigma. No one believes they will succeed. (Stout 2013 December 17)

The rural–urban divide in the schooling system, usually conceptualized as a rural–urban *hukou* dichotomy (Hao and Woo 2012), is often regarded as the direct reflection of the unequal nature of educational development (Zhou et al. 2007). The opportunity for a good education is limited for migrant children, those rural children who follow their parents to cities. The *hukou* system ties access to subsidized social services to one's hometown, thereby denying rural children the right to enter public schools in urban centers (Wu and Treiman 2003). Local governments are the primary resource for compulsory education, and they allocate the budget for free public education only for children who have local *hukou* (Gao 2014). Unregistered migrant children, without resident status, confront many barriers accessing quality compulsory education, such as schools claiming to be full because they receive no funding for migrant pupils, or schools charging illicit "donations" of as much as 6000 RMB (US$1000) a term (Gao 2014). Many children of migrants have few choices but to enroll in private but low-quality schools. Migrant children have higher dropout rates than urban resident children because of the high school fees and older migrant children entering the labor market (UNICEF 2015). Zhongping Hu, a rural migrant doing casual manual labor in Beijing, commented on the difficulties:

> I wish my kids could go to a state school. Parents always wish their children could receive a better education. You need connections to get your kids in [to state school] if you are from other places, and making those connections costs too much money. We can't afford it. (Lia 2003)

Education for migrant children has become prominent in recent years as growing numbers of migrant workers choose to take their families to the cities. The revised Compulsory Education Law of 2006 and the National Plan for Medium and Long-Term Education Reform and Development (2010–2020) require the governments of the receiving cities to bear the main responsibility of providing basic education for migrant children, primarily by accommodating them in public schools (UNICEF 2015). Yet despite progressive government policies and regulation, special local government regulations and students' high rates of mobility often tend to foil the full integration attempt (Gao 2014). In July 2014, the Chinese Government once again furthered reform and issued its "Opinions on Further Promoting Reform of the Household Registration System," which has been aimed at expanding essential public services, including education, to cover more migrant children (UNICEF 2015).

Interregional educational equity is also threatened. This is particularly demonstrated by college admission processes, which are dominated by results obtained in the national college entrance examinations. The Ministry of Education usually determines the supply of college admissions and assigns a quota to each higher education institution, which are all state funded and supervised (Wu 2012). This quota is also

known as the National Unified Admission Process. Colleges recruit students nationwide based upon Ministry-assigned admission quotas, yet they have the freedom to decide the number of admissions in each province. Numbers of students admitted across provinces are uneven. Higher institutions prefer local students, mostly because local governments provide substantial financial resources to the universities and encourage colleges to admit more local students so as to promote local human capital (Wu 2012). For instance, Tsinghua University in Beijing enrolled 3300 undergraduate students in 2005, of which 10.6% were from Beijing, while only 1% of the nation's population resides in Beijing (Wu 2012). In wealthy cities and provinces, where more educational resources are available and first-tier universities are found, admission criteria to better colleges are relatively lower for local students.

The high cost of urban living encourages some migrant parents to leave their children in rural areas with their grandparents or other relatives; they are known as "rural left-behind children" (Hannum 1999; Zhang and Kanbur 2005; Hao and Woo 2012). The boarding schools and custodial and support mechanisms established as part of the School Merger Program aim to address the education and the care of these children (UNICEF 2015). However, teacher quality, school management, facilities, and supervision in boarding schools remain a concern. Rural students usually have little chance when competing with urban students under the rural schooling system. A lack of parental supervision compounds many students' low academic performance. Yan Jingtao, the son of a watermelon farmer, did not have the qualifications to enter a standard upper secondary school. He was encouraged to attend a vocational school on the edge of the city of Kaifeng, Henan Province, to study animation, but stopped attending school a couple of months later. Instead of attending school the son was playing video games in a nearby Internet Café. His father said:

> Our rural hukou makes it difficult for us to send our children to better-resourced and better-run middle-schools in the cities. Migrants, like us often have no choice but to leave their children behind to be educated. Kids live with their grandparents most likely, but my parents are too old to look after them, not mention to make sure they go to school every day and study well. (Kaifeng 2014, August 23)

The prominent spatial disparity of educational attainment in China echoes the widening regional and urban–rural inequality. China has erected examination hurdles, *zhongkao* (Senior High School Examination) and *gaokao* (National College Entrance Exam), in front of all middle and high school graduates. The development of a private tutoring market, also known as "shadow education" (Nishimura 2006) is facilitated by fiercer examination competition, lack of quality public education, and relaxation of private education policies, as well as the more general increases in industrialization and urbanization. Since the beginning of 2014, Premier Keqiang Li has emphasized that efforts should be made to develop vocational education and professionals that are suited to market needs, thereby opening up a new pathway for the development of private and vocational schools in China (Deloitte 2014). In 2013, publicly listed education companies in China achieved an increase of some 22% in business revenues, compared with 32% in 2012, and a rise of 15% in net profit (Deloitte 2014). Presently educational equality is challenged at a younger age

because of the expansion of the private market for kindergartens. The number of both high-end kindergartens targeting well-off parents and low-end ones for the children of migrant workers keeps growing. Middle-class families are putting an increasingly higher demand on kindergarten quality, based on teachers' qualifications and teaching programs (Deloitte 2014). Increasingly, private costs of education comprise a substantial part of the overall education cost, which has implications for educational equity (Nishimura 2006).

Chinese families tend to mobilize all possible means—financial, human, cultural, and social capital—to help their children gain an edge in school learning (Zhou and Wang 2014). One study found that students in Shanghai spent around 6 h per week on extra lessons (Zhou and Wang 2014). Not surprisingly, receiving private tutoring is highly correlated with students' socioeconomic status (Zhou and Wang 2014) and cultural characteristics that are transmitted intergenerationally (Bray 1999; Bray and Lykins 2012). Migrant children and "left-behind children" are usually unable to access after-school classes because of their families' financial constraints, and thus find it hard to attain high scores in life-changing examinations. The academic achievement gap between migrant workers' children and their urban counterparts threatens the educational equality in the broader Chinese society.

8.5 Conclusion

Today, about 700 million—54%—of China's 1.3 billion people live in cities, an increase from an urban population of 200 million in 1980, and the number is expected to reach one billion in 2030 (UN 2014). China's urbanization movement of 500 million people over the past 30 years is one of the most rapid urbanization processes in history. As places where innovations are incubated and sophisticated skills are developed, cities are engines of growth (Yeakey et al. 2012). However, rapid urbanization has brought about significant demographic changes in both rural and urban areas. At least 200 million urban residents have limited access to city services, one of the most important aspects of which is education (UN 2014).

Available data reveal considerable economic and social inequalities in Modern China. Inequality between rural and urban areas is significant, and migrant rural workers coming to the cities for work are often regarded as inferior, mainly because of their lack of education. The inequitable distribution of benefits resulting from economic growth and the goal of developing a more pluralistic society in China have led to a social transition process characterized by more significant polarizations between rural and urban areas, among regions, and within diverse social groups (Sun et al. 2012). China needs to undertake reforms that mitigate inequality if its rapid growth is to continue sustainably and harmoniously. Particularly in education, reforms should address equality *and* equity, weaken the impact of social origin during schooling experience, and foster upward intergenerational mobility.

This chapter has reviewed research examining China's rapid urbanization progress and its effects on education equality and equity. Rural left-behind children face

reduced educational opportunities and outcomes. The accessibility of quality education for those children who follow their parents to urban areas is not guaranteed. Moreover, the current examination and admission system, which directly leads to the expansion of the private education market, results in larger disparities between rural and urban and among regions.

Urban centers should be full of opportunities and promise (Yeakey and Shepherd 2012). As one of the most important public goods in any nation, education is a significant determinant of an individual's productivity and a country's economic growth. Education also plays a vital role in fostering social mobility and preparing citizens for inclusive economic growth (Labaree 1997; Bray and Lykins 2012). Such an institution, however, has been increasingly considered as a system of legitimation, affecting society by socializing individuals, and conferring success on some and failure on others (Meyer 1977). New urban dwellers in China face dilemmas of urban living when considering their children's education. For individuals, education has been a great hope, especially for the poor, the vulnerable, and the marginalized. Both the disparities of educational opportunity and outcomes hinge on the dynamics of intergenerational mobility, which threatens social stability and progress. Overall, the driving forces of China's unprecedented economic growth have been aggregate labor productivity growth, especially the expansion of basic and postsecondary education, which has promoted human capital and eventually become the most important source of China's revival since 1978 (Zhu 2012).

Based on the foregoing analyses, public policy aimed at sustainable economic development needs to address the effects on educational equality and equity brought by rapid urbanization and industrialization. Narrowing the disparities in educational opportunities and attainment between urban and rural students, as well as among regions, should be a prime objective for national education reform. Sustainable urban development also needs to focus on not only city expansion but also inclusiveness. As more people reside in cities, educational resources must be designed to meet the diverse needs of communities.

References

Blau, P. M., & Duncan, O. D. (1967). *The American occupational structure*. New York: Free Press.

Bourdieu, P. (1973). Cultural reproduction and social reproduction. In R. Brown (Ed.), *Knowledge, education and cultural change* (pp. 7–112). London: Tavistock.

Bourdieu, P. (1986). The forms of capital. In J. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 241–258). New York: Greenwood.

Bourdieu, P., & Passeron, J. (1977). *Reproduction in education, society and culture*. Beverly Hills: Sage.

Bray, M. (1999). *The shadow education system: Private tutoring and its implications or planners*. Fundamentals of Educational Planning No. 6. Paris: UNESCO International Institute for Educational Planning.

Bray, M., & Lykins, C. R. (2012). *Shadow education: private supplementary tutoring and its implications for policy makers in Asia*. Mandaluyong City, Metro Manila, Philippines: Asian Development Bank.

Bronfenbrenner, M. (1973). Equality and equity. *The ANNALS of the American Academy of Political and Social Science, 409*(1), 9–23.
Causa, O., & Johansson, A. A. (2011). Intergenerational social mobility in OECD countries. *OECD Journal: Economic Studies, 2010*(1), 1–44.
Deloitte. (2014). Report on the diversification of China's education industry 2014. China Research and Insight Center. Deloitte China. https://www2.deloitte.com/content/dam/Deloitte/cn/Documents/technology-media-telecommunications/deloitte-cn-tmt-deloitte2014educationindustryreport-en-220514.pdf. Accessed December 10, 2017.
Dixon-Roman, E., & Gordon, W. E. (Eds.). (2012). *Thinking comprehensively about education: Spaces of educative possibility and their implications for public policy*. London: Routledge.
Fend, H. (1974). *Gesellschaftliche Bedingungen Schulischer Sozialisation*. Weinheim: Beltz.
Fry, G. W. (1983). Empirical indicators of educational equity and equality: A Thai case study. *Social Indicators Research, 12*(2), 199–215.
Gao, H. (2014, September 4). China's education gap. *New York Times*. http://www.nytimes.com/2014/09/05/opinion/sunday/chinas-education-gap.html?_r=0. Accessed December 10, 2017.
GeoCity. (2013). *Singularities of urban systems in China and India*. Swerts Geo Driver City. http://geodivercity.parisgeo.cnrs.fr/blog/2013/07/singularities-of-urban-systems-in-china-and-india/. Accessed December 10, 2017.
Gongloff, M. (2014, October 8). China's economy just overtook the U.S. in one key measure. *The Huffington Post*. http://www.huffingtonpost.com/2014/10/08/china-gdp-tops-us_n_5951374.html. Accessed December 10, 2017.
Hall, A. L., & Midgley, J. (2004). *Social policy for development*. New York: Sage.
Hannum, E. (1999). Political change and the urban-rural gap in basic education in China, 1949–1990. *Comparative Education Review, 43,* 193–211.
Hao, L., & Woo, H. S. (2012). Distinct trajectories in the transition to adulthood: Are children of immigrants advantaged? *Child Development, 83*(5), 1623–1639.
Haveman, R., & Wolfe, B. (1995). The determinants of children's attainments: A review of methods and findings. *Journal of Economic Literature, 33,* 1829–1878.
Ishida, H. (2001). Industrialization, class structure, and social mobility in postwar Japan. *British Journal of Sociology, 52,* 579–604.
Kaifeng. (2014, August 23). Down and out in rural China. *The Economist*. http://www.economist.com/news/china/21613293-many-teenagers-chinese-countryside-do-not-finish-secondary-school-bodes-ill. Accessed December 10, 2017.
Labaree, D. (1997). Public goods, private goods: The American struggle over educational goals. *American Educational Research Journal, 34*(1), 39–74.
Lareau, A. (1987). Social class differences in family-school relationships: The importance of cultural capital. *Sociology of Education, 60*(2), 73–85.
Li, J. (2012). The student experience in china's revolutionary move to mass higher education: Institutional challenges and policy implications. *High Education Policy, 25*(4), 453–475.
Li, B., & Piachaud, D. (2004). *Poverty and inequality and social policy in China*. CASE Paper 87, Centre for Analysis of Social Exclusion, London School of Economics.
Lia, P. (2003). The psychological impact and response to poverty and inequality. China Social Class Structure. http://www.china.org.cn/chinese/null/314698.htm. Accessed December 10, 2017.
Lipset, S. M., & Zetterberg, L. H. (1959). Social mobility in industrial societies. In M. S. Lipset & R. Bendix (Eds.), *Social mobility in industrial society*. Berkeley: University of California Press.
Lu, X. (2002). A report on contemporary Chinese social classes (dangdai zhongguo shehui jieceng yanjiu baogao). *Social Science Literature Press* (Shehui Kexue Wenxian Chubanshe).
Lu, Y., & Zhou, H. (2013). Academic achievement and loneliness of migrant children in China: School segregation and segmented assimilation. *Comparative Education Review, 57*(1), 85–116.
Mackenzie, K. (2012, August 30). The rapid March towards urbanization. *Financial Times Alphasille*. http://ftalphaville.ft.com//2012/08/30/1127791/the-rapid-march-towards-urbanisation/. Accessed December 10, 2017.

Meyer, J. W. (1977). The effects of education as an institution. *American Journal of Sociology, 83*(1), 55–77.
MOE China. (2015). Laws. Ministry of Education of the People's Republic of China. http://www.moe.edu.cn/publicfiles/business/htmlfiles/moe/moe_2803/index.html. Accessed December 10, 2017.
National Bureau of Statistics [China]. (2013). Wages in China. China Statistical Yearbook. http://www.clb.org.hk/en/view-resource-centre-content/100206. Accessed December 10, 2017.
National Bureau of Statistics [China]. (2015). National Data—Regional—Quarterly by Province. http://data.stats.gov.cn/english/. Accessed December 10, 2017.
Nishimura, M. (2006). Considering equity in basic education reform in Japan from the perspective of private costs of education. *Asia Pacific Education Review, 7*(2), 205–217.
Qian, X., & Smyth, R. (2008). Measuring regional inequality of education in China: Widening coast-inland gap or widening rural-urban gap? *Journal of International Development, 20*(2), 132–144.
Sampson, R. J., Sharkey, P., & Raudenbush, S. W. (2008). Durable effects of concentrated disadvantage on verbal ability among African-American children. *Proceedings of the National Academy of Sciences, 105*(3), 845–852.
Shanahan, P. (2011). Reforming the current model of private investment in Chinese education. *Asian-Pacific Law & Policy, 13*(1), 210–229.
Sharkey, P. (2008). The Intergenerational transmission of context. *American Journal of Sociology, 113*(4), 931–969.
Sharkey, P. (2012a). Residential mobility and the reproduction of unequal neighborhoods. *Cityscape, 14*(3), 9–31.
Sharkey, P. (2012b). Temporary integration, resilient inequality: race and neighborhood change in the transition to adulthood. *Demography, 49*(3), 889–912.
Sharkey, P., & Elwert, F. (2011). The legacy of disadvantage: multigenerational neighborhood effects on cognitive ability 1. *American Journal of Sociology, 116*(6), 1934–1981.
Statista. (2013). Number of migrant workers in China from 2008 to 2013 (in millions). http://www.statista.com/statistics/234578/share-of-migrant-workers-in-china-by-age/. Accessed December 10, 2017.
Stout, K. (2013, December 17). Mind the gap: China's great education divide. CNN World. http://www.cnn.com/2013/12/17/world/asia/china-education-gap-stout/. Accessed December 10, 2017.
Sun, J., Buys, N., & Wang, X. (2012). Effects of social identity and poverty on orientation towards mass incidents in mainland China. In C.C. Yeakey (Ed.), *Living on the boundaries: Urban marginality in national and international contexts.* Bingley: Emerald.
The World Bank. (2017). Urban population (% of total). The World Bank Data. http://data.worldbank.org/indicator/SP.URB.TOTL.IN.ZS?locations=US. Accessed December 10, 2017.
UN United Nations. (2014). World urbanization prospects: the 2014 revision. [Highlights]. United Nation Department of Economic and Social Affairs & Population Division. https://esa.un.org/unpd/wup/publications/files/wup2014-highlights.pdf. Accessed December 10, 2017.
UNICEF. (2015). Children in China: An atlas of social indicators. NWCCW & NBS. http://www.unicef.cn/en/atlas. Accessed December 10, 2017.
Wolff, J. R., & Gordon, E. W. (2008). Comprehensive educational equity: the path to meaningful opportunity for excellence. In *Comprehensive Educational Equity: Overcoming the Socioeconomic Barriers to School Success Equity Symposium 2008*, Teacher College, Columbia University, November 17–18, 2008.
Wu, Y. (2008). Cultural capital, the state, and educational inequality in China, 1949–1996. *Sociological Perspectives, 51*(1), 201–227.
Wu, Y. (2012). The examination system in China: The case of Zhongkao mathematics. In *12th International Congress on Mathematical Education* (pp. 1–18). http://www.icme12.org/upload/submission/2034_f.pdf.

Wu, X., & Treiman, J. D. (2003). *The household registration system and social stratification in China: 1955–1996*. California Center for Population Research On-Line Working Paper, No. CCPR–006–03.

Yeakey, C. C. & Shepard, L. D. (2012). The downward slope of upward mobility in a global economy. In C. C. Yeakey (Ed.), *Living on the boundaries: urban marginality in national and international contexts.* Emerald.

Yeakey, C.C., Thompson, L.S.V., & Wells, A. (2012). Confronting the dilemmas of twenty-first-century urban living in global contexts. In C.C. Yeakey (Ed.) *Living on the boundaries: urban marginality in national and international contexts*. Emerald.

Yu, S., & Hannum, E. (2007). Food for thought: Poverty, family nutritional environment, and children's educational performance in rural china. *Sociological Perspectives, 50*(1), 53–77.

Zhang, X., & Kanbur, R. (2005). Spatial inequality in education and health care in China. *China Economic Review, 16,* 189–204.

Zhou, Y., & Wang, D. (2014). The family socioeconomic effect on extra lessons in Greater China: A comparison between Shanghai, Taiwan, Hong Kong, and Macao. *The Asia-Pacific Education Researcher,* 1–15.

Zhou, N., Zhu, M., You, B., Gao, X., Wang W., & Zhao, L. (2007). *Educational reform and curriculum change in China: a comparative case study*. International Bureau of Education. Retrieved from http://www.ibe.unesco.org/fileadmin/user_upload/COPs/Pages_documents/Comparative_Research/EduReformChina.pdf.

Zhu, X. (2012). Understanding China's growth: Past, present, and future. *Journal of Economic Perspectives, 26*(4), 103–124.

Chapter 9
Urban Sustainability in India: Green Buildings, AMRUT Yojana, and Smart Cities

Russell M. Smith and Prasad Pathak

Abstract The problems of urban growth and development are especially acute in India. Large numbers of urban dwellers, high rates of migration, and limited public infrastructure all place enormous burdens upon India's cities. As a result, India has been exploring options on how to improve the sustainability of its urban centers. These efforts have included the development of programs focused on creating a more sustainable pattern of development through green building rating systems (i.e., LEED-India and GRIHA). More recently, the Government of India has announced the Smart Cities Mission to develop smart cities and the AMRUT Yojana program focused on urban renewal efforts across India. These national programs and numerous local efforts seek to create more efficient urban forms through better planning, design, and engineering. These programs also hope to use India's limited resources more efficiently and improve residents' overall quality of life in a sustainable manner. The chapter explores urban sustainability in India. It discusses past and current national and local sustainable urban development projects, examines specific examples of a variety of urban sustainability programs, and provides an outlook for the future.

Keywords AMRUT yojana · Green building · India · Smart Cities mission Urban sustainability

R. M. Smith (✉)
Department of History, Politics and Social Justice, Winston-Salem State University, 601 MLK Jr. Drive, Winston-Salem, NC 27110, USA
e-mail: smithrm@wssu.edu

P. Pathak
Department of Physical and Natural Sciences, FLAME School of Liberal Education, FLAME University, Lavale, Pune 412115, India
e-mail: prasad.pathak@flame.edu.in

B. Grant et al. (eds.), *Metropolitan Governance in Asia and the Pacific Rim*,
https://doi.org/10.1007/978-981-13-0206-0_9

9.1 Introduction

Scholars have declared the twenty-first century the "urban century" and over the last several decades the world has awakened to the monumental challenges facing urban areas. According to United Nations (UN) estimates, in 2014 roughly 3.9 billion people (i.e., more than 53% of the global population) lived in urban settings, and by 2050 more than 6.3 billion people are forecast to live in cities (UN 2014). This prediction alone compels us to examine the carrying capacity of all cities (not only mega-cities such as Delhi or Shanghai), as the urban infrastructure may be inadequate for addressing crises in the policy areas of housing, transportation, education, health care, and a myriad of public utility-related infrastructures.

A potential solution to these enormous challenges facing urban areas is to aim for a more sustainable pattern of urban development. The release of "Our Common Future" by the Brundtland Commission in 1987 (Brundtland 1987) focused attention on the sustainability and sustainable development of cities, and many scholars believe that our greatest contribution to a more sustainable world will be by concentrating on urban areas (Glaeser 2011; Owen 2009; Wheeler 1996).

Globally, an additional 2.5 billion residents will be added to the already-existing 3.5 billion city dwellers by 2050 (Donath 2014). These increasing populations will put tremendous strain on cities' economic, environmental, and social capacities if development patterns remain unchanged. Meanwhile issues of rising sea levels and changing and limited financial resources are forcing individual cities to pursue urban sustainability (Pitt 2010; US Conference of Mayors 2014).

Sustainable urban development practices can have a profound impact on how cities manage their energy, water, and land use. Approximately 40% of energy use comes from buildings and 17% from passenger vehicle travel (Pitt 2010); by adjusting our land use regulations, building codes, and transportation plans we can create buildings that use less energy and locate them in areas served by mass transit, thus reducing vehicle miles traveled (Brueckner 2000; CoStar Group 2008; Edwards 2006; Eichholtz et al. 2010; von Paumgartten 2003). Similarly, we can reduce water consumption by implementing plans to harvest rainfall, recycle gray water, and utilize low-flow technologies (Jones and Hunt 2010; Levine and Asano 2004), and land can be preserved by siting urban development within the fabric of existing cities and by utilizing brownfields and infill locations (Wedding and Crawford-Brown 2007).

The potential benefits of sustainable urban development practices are especially important in India due to the size and scale of the urban problems facing the country. According to recent estimates, India's urban population has reached 420 million or approximately 33% of the total population, who collectively contribute 63% of India's GDP; by 2030 these percentages are expected to reach 40 and 75%, respectively (GOI Census of India 2011). Many of these urban dwellers are scattered among India's 53 urban areas with populations greater than 1 million. The current population of Mumbai is estimated to be 18 million residents, that of Delhi 16 million, and Kolkata more than 14 million (IIHS 2012). The sheer size of the increasing urban population—estimated to reach 800 million residents by 2050 (Tewari et al. 2016),

more than 2.5 times than the current total population of the United States—means that India must make critical decisions about its urban planning.

Growing numbers of city dwellers enable authorities to take advantage of economies of scale in providing public services such as public transport, public utilities, and solid waste services (Owen 2009). Provision of public transport in urban spaces can reduce the need for carbon-polluting single-occupant vehicles (Sahni and Aulakh 2014). Careful planning and implementation can facilitate the efficient provision of water and disposal of sewerage and solid waste. Finally, urban environs can also provide numerous economic development opportunities and act as engines of growth (Lindfield 2010; Tewari et al. 2016).

However, the urbanization occurring in India might be too rapid to allow authorities to properly plan and implement the necessary public services (Sankhe et al. 2011). Additionally, huge population increases in cities place extra burden on already struggling water and sewer infrastructure, transportation systems, and overburdened housing stock (McKenzie and Ray 2009; Pucher et al. 2005; Venkateswarlu 1998). The natural environment is already degraded in many urban settings around the country and adding millions of additional city dwellers has the potential to further exacerbate the problem (Gupta 2007). This is especially true for greenhouse gas emissions, where CO_2 levels are expected to multiply fivefold over the next couple of decades (Sahni and Aulakh 2014).

Armed with this background about the worrying situation facing urban India and the desperate need for sustainable solutions, the remainder of this chapter is structured as follows. Section 9.2 explores several urban sustainability programs. Section 9.3 contains case studies that illustrate how urban sustainability is being implemented, and Sect. 9.4 outlines the government's plans with its Smart Cities Mission. Finally, Sect. 9.5 discusses the outlook for India's urban environs. We argue that India will become urban, but what this urban future will look like is still to be determined and, as a recently released paper on India's urban opportunity states, a continuation of "poorly planned, sprawling, unconnected pattern of urbanization could impose significant costs on Indian development, amounting to an estimated US$330 billion to US$1.8 trillion per year by 2050" (Tewari et al. 2016, p. 7).

9.2 Urban Sustainability Programs in India

In an effort to tackle the multitude of issues faced by urban India and develop a more sustainable urban future, the Government of India (GOI) and a variety of non-government organizations have developed several urban development programs to guide growth. These include India's Smart Cities Mission, AMRUT YOJANA, Leadership in Energy and Environmental Design—India (LEED-India), and the Green Rating for Integrated Habitat Assessment (GRIHA).

9.2.1 History of Urban Development Policy and Programs

Following independence from the British in 1947, the GOI took a proactive approach to urban development by planning and building more than 100 new towns and cities in response to demographic, economic, and administrative needs (Brown 1984). In the next two decades, "many new towns were built and key institutions supporting urban growth for the next several decades [were] established" (Shaw 2009, p. 858).

A second phase of urban development policy in India (approximately 1969–1984) focused on balanced growth and the GOI's preference that small- and medium-sized urban centers grow and prosper (Gnaneshwar 1995). A major emphasis at this time was "achieving balanced urban growth through dispersing populations in smaller urban centers" (Batra 2009, p. 10). The government also provided direct funding for infrastructure and urban improvements in small-/medium-populated cities to try to stem the tide of the growth in the major metropolitan areas of India.

This era of balanced growth began with the Fourth Plan (1969–1974), in which the government emphasized the decongestion and dispersal of urban growth from larger cities like Mumbai, Kolkata, and Chennai (Gnaneshwar 1995) by encouraging the development of suburbs. The ensuing Fifth and Sixth plans also focused on the need to develop small- and medium-sized cities, using "a variety of incentives, capital investment subsidy, transport subsidy and income tax rebate" to select "backward areas" (Gnaneshwar 1995, p. 296). Yet this approach was not successful and major urban centers in India have continued to see high levels of urbanization and economic development since independence.

The most recent urban development policy era (from 1986 to the present) has witnessed a concerted move toward the privatization of urban policy. The development of Public-Private Partnerships (PPPs) and the opening of India for foreign direct investments had a major impact on urban spaces throughout the country (Batra 2009). This period has also witnessed the creation of the *74th Constitutional Amendment Act*, which "sought to decentralize decision-making in cities and towns through the creation of elected urban local bodies (ULBs) as institutions of democratic self-governance and devolution of essential functions related to city planning and service provision" (Batra 2009, p. 19).

The Jawaharlal Nehru National Urban Renewal Mission (JNNURM) was one of the most recent government-sponsored efforts to tackle urban issues in India (Nandi and Gamkhar 2013). This program sought to improve governance, infrastructure, basic service for the poor, and community participation in a select group of large cities throughout India (GOI JNNURM 2011). Specifically, the JNNURM sought to establish the state as a facilitator and regulator of urban policy, rather than a direct provider of services. The current government has reformed the JNNURM into AMRUT YOJANA, which is discussed in Sect. 9.3.

The most recent attempt by the GOI to influence urban development is the recently announced Smart Cities Mission. This program attempts to retrofit existing built-up areas, redevelop or replace existing built environments, and develop new greenfield areas within India. The goal of all these strategies is to create a smarter city that

provides residents with water, electricity, sanitation, mobility, housing, technological connectivity, safety, good governance, and a sustainable environment (MoUD 2015). The Smart Cities Mission is discussed in Sect. 9.4.

9.2.2 Green Rating Systems in India

A plethora of green rating systems have been promulgated across the globe: Building Research Establishment Environmental Assessment Method (BREEAM, UK/Europe), Leadership in Energy and Environmental Design (LEED, US and affiliates), Green Building Assessment System (GBAS, China), German Sustainable Building Council (DGNB, Germany), and Green Star (Australia). to name a few. The systems all offer a template by which developers, planners, and the like can more easily implement sustainable urban development practices. By focusing on a variety of important components (e.g., building materials, location, energy use), these rating systems encourage energy conservation in new buildings, the use of recycled products, infill, and other sustainable urban development standards by rewarding eligible projects with a marketable certification.

In India, the two main green rating systems are LEED-India (Leadership in Energy and Environmental Design) and GRIHA (Green Rating for Integrated Habitat Assessment). These programs seek to create more efficient urban forms through better planning, design, and engineering. They also hope to use India's limited resources more efficiently, improve residents' overall quality of life, and protect the environment for future generations.

LEED-India is associated with the international LEED program, which is administered in India by the Indian Green Business Council (IGBC). Initiated in 2001 as an offshoot of the US Green Building Council LEED program, the India Green Building Council currently boasts more than 2000 IGBC members spread across 20 local chapters (IGBC 2016b). The vision of the IGBC is "[t]o enable a sustainable built environment for all and facilitate India to be one of the global leaders in sustainable built environment by 2025" (IGBC 2013, p. X).

In general, the LEED system is the method of green certification preferred by both western companies and the private sector in India (Smith 2015). The rating system itself is based on encouraging sustainable design and construction techniques in new buildings. Points are awarded to projects based on performance related to sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality (IGBC 2013). Similar to other LEED systems, LEED-India awards project certification at four levels: Certified, Silver, Gold, or Platinum.

The LEED system focuses on encouraging sustainable development at the project level (building) rather than at the regional scale, which can limit its effectiveness. Proposed projects go through several steps—registration, credit interpretation, certification and documentation, and certification award—and there is an appeal process if a project is not certified (IGBC 2013). The marketing of a LEED building and the

operationalized cost savings may well be worth the certification cost, which can be thousands of dollars.

IGBC's Green Homes Rating System for residential development specifically focuses on energy and water savings. Its Green Townships Rating System applies to larger projects and addresses the issues of urban sprawl, automobile dependency, and social and environmental disconnect by evaluating each development's plans for the environment, land use, resources management, and the community (IGBC 2013). Finally, the IGBC has developed the Green Factory Building Rating System for industrial buildings in an effort to bring sustainable design to the workplace. This voluntary and consensus-based program was launched in July 2009.

India's other major green rating system is the Green Rating for Integrated Habitat Assessment (GRIHA), a quasi-public system for promoting sustainable building practices and techniques. Developed in the early 2000s and available for project certification from 2005, this indigenous green rating system is marketed as a national alternative to the systems developed in other mostly western countries with very different climate conditions and resource limitations (ADaRSH 2016a).

GRIHA is unique because it incorporates local building knowledge and geographic conditions into its system, and it focuses on the sustainability of projects after construction. GRIHA's motto "What gets measured, gets managed" alludes to its focus on examining the performance of buildings and projects over the entire life cycle of the development. Part of GRIHA recognition consists of a 1–5 star rating system that assesses energy/power consumption, water consumption, water generation, and renewable energy integration (ADaRSH 2016a). These factors are different from LEED standards and are tailored to the Indian context. By emphasizing measurable factors, GRIHA seeks to reduce natural resource consumption patterns, reduce greenhouse gas emissions, and increase the use of renewable energy sources.

Similar to LEED-India certification, GRIHA is a voluntary program, although the Ministry for New and Renewable Energy has declared that all government buildings must be constructed to GRIHA standards in order to receive funding support (Vasandani 2010). GRIHA has consequently become the preferred and mandated green certification program and process for governmental and institutional developments.

The process for achieving GRIHA recognition is also similar to that for the LEED program—registration, certification fee determination, submission of documentation, and evaluation—and has a comparable cost for certification. One benefit that is offered as part of GRIHA certification is the potential to fasttrack environmental clearance procedures. Many large projects can be delayed as a result of requirements for approval; however, by utilizing the GRIHA program a developer could save months of waiting (Turab 2013).

Four current GRIHA programs are attempting to deliver a more sustainable built environment. First, the standard GRIHA system examines projects with a built-upon area of greater than 2500 m^2 along 34 criteria. This original program awards points along a continuum of 0–100 with five points needed for minimum 1-star certification (ADaRSH 2016d). Second, the SVAGRIHA or Small Versatile Affordable GRIHA program, developed specifically for projects with a built-upon area of less

than 2500 m^2 (ADaRSH 2016e), is applicable for rating any building that meets the built-upon area limitation except for a factory building. Third, GRIHA for Large Developments (LD) designation requires a built-upon area greater than or equal to 1500,000 m^2 and/or a total site area of greater than or equal to 50 hectares (ADaRSH 2016b). GRIHA LD projects are evaluated on six factors: site planning, energy, water and wastewater, solid waste management, transport, and social effects. Finally, the newest GRIHA rating system applies only to existing day schools within India: GRIHA Prakriti evaluates the environmental performance of existing schools, rating projects using six criteria similar to the GRIHA LD requirements (ADaRSH 2016c).

Interestingly, the two parent organizations of these competing green rating systems—TERI and the USGBC—have announced a partnership to advance the development of specific criteria for improving sustainable building practices within India, which had been a specialty of the GRIHA initiative. This joint project will tackle "India-specific approaches to further building performance, energy savings and water conservation for existing buildings in India" (Long 2015, p. X). By joining forces, these two groups hope to share information that will lead to a more sustainable urban future for all development within India.

9.3 Case Studies

9.3.1 ITC Hotels and the LEED Platinum Certification Standard

India is home to more than 3900 registered projects, which account for 4.47 billion ft^2 of green building space, giving India the second largest amount of green building space in the world (IGBC 2016a). The almost 4000 projects are certified under the 18 green rating systems administered by the IGBC that range from residential structures to existing commercial buildings and transit stations (IGBC 2016b).

One example of a successful integration of green building ratings with a commercial enterprise in India has been the use of LEED by the ITC Hotel chain (see Fig. 9.1). In July 2011, the hotel chain announced that "all ITC's luxury hotels have been accorded the highest rating: LEED Platinum (leadership in energy and environmental design) making it the greenest luxury hotel chain in the world" (ITC 2016a, p. X). These properties are certified under either LEED-India standards or the USGBC's LEED requirements. In keeping with its green focus, the ITC group also delivers an annual sustainability report that explores its triple bottom line—people, planet, and profit approach to business (Kumar Roy 2014).

Several of ITC's luxury hotels with LEED Platinum standard can be found across India, including Asia's first Platinum-rated property, ITC Gardenia, Bengaluru; the ITC Grand Central, Mumbai, which consumes 48% less water than LEED's standards for larger luxury hotels; the ITC Maurya, New Delhi, which was the first hotel worldwide to be certified Platinum under the existing building category; and the ITC

Fig. 9.1 Maurya ITC, Delhi. *Source* Travel Delhi.com (2017)

Sonar, Kolkata, which was the first hotel in the world to earn carbon credits under a carbon trading program (ITC 2016c). Additionally, ITC Hotels utilize the LEED certification standards as a tool to help achieve water and carbon neutrality, and "ITC hotels have been water positive for the last 11 years and carbon positive for eight years" (O'Neil 2013).

The ITC Hotel group accomplishes its mantra of "responsible luxury" by delivering energy efficiency, water efficiency, and waste reduction programs at its properties. Specifically, for hotels that have been certified LEED Platinum under the Existing Building (EB) category, ITC has documented an 18–29% decrease in energy consumption and a decrease of 50% in water consumption, and it also utilizes sustainable site development standards, protects indoor air quality through the use of green seal chemicals, and reuses or recycles more than 99% of the total solid waste generated on site (ITC 2016b).

Several important LEED standards are incorporated into ITC's new constructions. Hotels constructed under the LEED Platinum New Construction (NC) category utilize 100% renewable energy sources, more than 80% of constructed space is lit by access to natural light, and covered parking reduces the heat island effect within the city. New properties use low VOC paint, certified forest-friendly wood, and recycled materials. Finally, new technologies and better design have resulted in a 100% reduction in water consumption by the air conditioning systems (ITC 2016b). Through the use of the LEED group of green rating systems, ITC Hotels are leading the way in promoting sustainable urban development in India.

9.3.2 GRIHA: An Indigenous Green Rating System

The GRIHA rating system was discussed above. Established by The Energy and Resources Institute (TERI) to promote the construction and redevelopment of green buildings within the Indian context, GRIHA now has more than 800 registered projects covering more than 344 million ft^2 of built-upon area (GRIHA India 2016a). Projects can be recognized for certification under one of the four programs that seek to promote a more sustainable urban environment through the design, construction, occupation, and demolition of a wide variety of building types and uses.

GRIHA projects have a strong relationship with government. As a result of government-mandated use of the GRIHA rating system for public buildings, the national capital has a high spatial concentration of GRIHA projects, developers of GRIHA projects are more likely to be government/public organizations and agencies, and, unsurprisingly, most GRIHA approvals are for institutional purposes (Smith 2015). Such institutional projects include government offices, research facilities, and educational structures. However, a successful example of a GRIHA-certified project that does not fit into one of those categories is the Office Building of Design Associates Inc., located in the State of Uttar Pradesh (see Fig. 9.2). The almost 11,000 sq. ft. building is home to an architectural design firm and has recently achieved 5-star certification under the GRIHA rating system. The primary purpose of the building is to serve as a commercial office space for a growing design firm that specializes in "delivering much more than just conventional architectural services" (Design Associates Inc. 2016).

Strategies used to reduce the building's impact included sustainable site planning, reduced water and energy consumption, and use of "green" materials. The final design preserved over 50% of the site as open space and planted more than 40 new trees. Similarly, the building's water demand was reduced by 70% through the use of low-flow fixtures and the installation of a rainwater storage tank. Finally, the site is close to existing amenities such as parks, grocery stores, and pharmacies, which highlights the importance of location when siting sustainable urban development projects (GRIHA India 2016b).

9.3.3 Challenges of India's Green Building Programs

Implementing green buildings in India does not come without challenges. First, green building programs are largely voluntary and private market-led initiatives. In some instances, local governments have begun to require a minimum green building rating on qualifying projects and the GOI has requirements for meeting green standards on government-financed developments. Additionally, financial incentives are available to developers who build to a green standard. Outside of these examples, green building programs rely upon the private market to "do the right thing" and construct buildings

and developments to a green standard. As a result, the size and scope of green buildings is limited.

Second, green building initiatives focus mainly on new construction. While some green redevelopment standards exist, most green building techniques and programs are centered on new buildings. This leaves a large part of India's existing urban fabric untouched and with little hope of a more sustainable future. Additionally, many newly constructed developments are marketed as "green," but without the certification from the IGBC or GRIHA. This widespread form of "greenwashing" is another hurdle.

Finally, this type of sustainable development incurs higher costs than traditional construction methods. As a result, the question of financing for developers is a major issue and the final cost of a development for prospective buyers is also a problem. Simply stated, are the long-term gains realized from constructing under a green building program worth the upfront costs? Most studies say yes, but the affordability is a major concern for the purchasers of these properties.

Fig. 9.2 Office Building of Design Associates Inc.—Uttar Pradesh. *Source* GRIHA India (2017)

9.3.4 AMRUT Yojana

Cities in India have stark socioeconomic segregation problems and residents of many large cities do not have access to basic amenities like safe drinking water supply, efficient sewerage systems, health facilities, and the like. To improve the quality of life for these disadvantaged segments of India's urban residents, in 2011 the GOI initiated a scheme called AMRUT YOJANA. AMRUT stands for "Atal Mission for Rejuvenation and Urban Transformation" and can be viewed as a broad attempt to encourage urban sustainability across India (GOI n.d.[a]).

AMRUT Yojana has four main objectives: (i) provide every household water supply and sewerage disposal; (ii) develop public spaces with greenery or maintained open spaces; (iii) promote public transport and encourage non-motorized transport to reduce air pollution; and (iv) develop stormwater systems in cities to avoid flooding. The program's highest priorities are to improve basic urban household facilities and enhance the use of public transport, and ultimately AMRUT YOJANA aims to implement activities with a direct impact on urban populations across India (GOI n.d.[b]), especially the poor and the disadvantaged.

The mission was started by the current BJP-led government in June 2015. The total funding for the scheme is approximately Rs. 50,000 crore (US$80 billion) for the four-year period 2015–16 to 2019–20. The scheme is funded by the central government. States submit city-specific applications, and the funding is being released in stages. It aims to eventually cover 500 cities with populations of more than 100,000 population; to date more than 80 cities have received funding.

In contrast, the JNNURM was an urban development scheme named after the very first Prime Minister of India, Jawaharlal Nehru, and launched by the previous government in 2005 under the leadership of the then Prime Minister, Manmohan Singh, with a total budget of US$20 billion. The current status of the mission is unclear; however, when the scheme was active, 67 cities were eligible to receive funds, and they were also expected to contribute and raise funds themselves.

The major criticism of the JNNURM program was the top-down approval process, which had little input from citizens or local governments. It also favored a relatively small number of selected cities and was limited in its overall reach. On the other hand, in AMRUT there is direct participation by citizens, and ULBs (urban local bodies) have to prepare plans for their cities' improvement. The respective states then combine these plans and submit it to the GOI as a State Annual Action Plan. The current government claims that it has learned from the JNNURM's delayed fund distribution and lack of transparency, thereby making AMRUT more direct, transparent, and relevant.

The AMRUT approval process created by the GOI relies upon the Ministry of Urban Development (MoUD) to partner with individual states and/or territories to achieve the program's goals. The MoUD approves State-Level Annual Action Plans, from which each state can then approve individual projects. A High-Powered Expert Committee (HPEC) developed the initial budget in 2011, estimating that Rs. 39.2 lakh crore (approximately US$61 billion) would be required to carry out the goals of

the AMRUT Yojana program, along with Rs. 19.9 lakh crore (approximately US$31 billion) for maintenance.

The nearly 500 eligible cities across India with which AMRUT is associated fall into five categories:

i. All cities and towns with a population of over 100,000 with notified municipalities, including Cantonment boards (civilian areas)
ii. All capital cities/towns of states/UTs, not covered in above
iii. All cities/towns classified as heritage cities by MoUD under the HRIDAY Scheme
iv. Thirteen cities and towns on the stem of the main rivers with a population above 75,000 and less than 100,000, and
v. Ten cities from hill states, islands, and tourist destinations (not more than one from each state).

For each city, the required improvements are identified at the zone level. These zones are the areas dedicated for specific use within the framework of a city's master plan of a city. The 2011 Indian Census provides the baseline data from which decisions are made. Likewise, each selected city must utilize gap identification to understand the exact needs in their jurisdiction, and prepare the budget accordingly. The government provides several guidelines for choosing areas to increase the likelihood of selected projects being completed. "Out of the box" thinking is encouraged during the planning so that more sustainable options can be incorporated. For example, instead of building large infrastructure to transport water from long distances to serve urban populations, AMRUT encourages the development, reuse, and recycling of local water sources.

All programs must consider potential funding sources in order to make the projects sustainable. For example, a city can assess the contribution from taxes and fees towards the overall project budget, and external funds, including central and state government funding, may also be considered.

The government offers individual and institutional assistance to those municipalities not yet ready to carry out such self-assessment and prepare the plans. Training on various aspects of the program occurs through seminars, classes, and online training sessions. Many private and public institutes, with domain expertise, help facilitate the program by preparing project proposals, identifying local needs, preparing baseline data using GIS technology, and the like (GOI n.d.[c]).

9.3.5 Case Study: Surat City

To date, few case studies have explored the success of AMRUT, due primarily to a lack of available data and the newness of the program. However, city-level implementation of the AMRUT scheme in Surat is worth discussing. Surat is a port city located in the Gujarat state of India. The 2011 Indian Census estimated Surat's population as 4.5 million (see Figs. 9.3, 9.4 and Table 9.1). The health of the city's residents has

Table 9.1 Surat population and socioeconomic characteristics

2011 Population	4,462,002
2001 Population	2,811,614
Population growth rate	58.7%
Literacy rate	89.03%
Slum population	10.5%
Electricity and latrines	93.9%
Electricity and no latrines	5.1%
No electricity and latrines	0.4%
No electricity and no latrines	0.6%

Source GOI Census of India (2011)

been adversely affected by numerous epidemics, mainly a result of blocked drains and heavy rains causing flooding throughout the city. The flooding killed animals, prevented waste from being properly disposed of and/or treated, and ultimately fostered an environment in which diseases spread rapidly. However, Surat has managed to become a clean city in a relatively short time, thanks to programs like AMRUT. Their program concentrates on collecting garbage from individual houses, managing waste generated from hotels, and recycling waste from industries. The collection of garbage at individual premises and transfer of containers to central facilities are carried out meticulously. Communities also contribute towards the collection system via Public-Private Partnerships (PPPs). The municipal corporation plans to expand the scheme to cope with growing populations throughout the city (Swaniti 2015).

9.3.6 Challenges to the Implementation of AMRUT

Overall the AMRUT mission tries to accommodate the needs of growing urban population in India by providing them with the basic infrastructure. Challenges AMRUT faces are the lack of skilled personnel and the required technical infrastructure, and unequal funding distribution. Along with Smart City mission, AMRUT's aim is to enhance sustainable urbanization. Its approach, however, demonstrates that it does not care about the socioeconomic structure and dynamics of individual cities, nor does it deal with environmental issues associated with increasing urban population. Thus, AMRUT has been criticized as a scheme that deals with large urban populations without addressing aspects of sustainability.

Fig. 9.3 Surat City Area Map. *Source* Authors

9.4 India's Smart Cities Mission

The green rating systems in general focus on new construction and development (although it should be noted that several systems have a rehabilitation program for existing development), but that often leaves many existing parts of an urban area with

Fig. 9.4 Surat Municipal Corporation Waste Management. *Source* Sohail (2017)

limited options for seeking a more sustainable pattern of development. As a result, there have been increasing calls for the development of policies and programs that tackle sustainability issues within the existing urban fabric. The recently announced Smart Cities Mission in India provides a mechanism for addressing this deficit.

In June 2015, the Ministry of Urban Development (MoUD) for the GOI released a "Mission Statement and Guidelines" for the Smart Cities Mission. The guidelines outline several strategies by which a municipality can apply to achieve "smart" city designation, including retrofitting, redevelopment, greenfield development, and Pan-City initiatives (MoUD 2015). *Retrofitting* an existing built-up area can be applied to any area of more than 500 acres and seeks to improve existing conditions within urban spaces. *Redevelopment* is described as replacing existing conditions. The minimum size of a redevelopment proposal is 50 acres. The *greenfield* development strategy seeks to incorporate smart city solutions into a new, undeveloped site, near existing urban areas and services. Finally, the *Pan-city* development strategy incorporates a Smart Solution (i.e., smart city core infrastructure) across an entire city. The guidelines allow for a mixing of strategies in a smart city proposal and require applicant cities to utilize a retrofit, redevelopment, or greenfield proposal in combination with a Pan-city solution (MoUD 2015).

Figure 9.5 provides a graphical representation of the Smart Cities Mission designation process. The process of achieving Smart City designation began with the

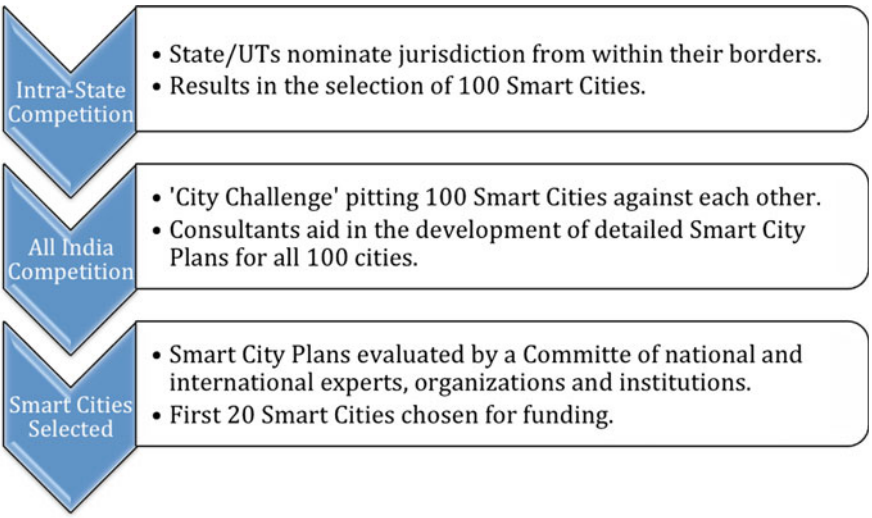

Fig. 9.5 Smart Cities Mission Process. *Source* MoUD (2015)

Intra-State competition, whereby Indian states/UTs submitted a shortlist of eligible municipalities that meet the minimum criteria outlined by the Ministry of Urban Development. The number of smart city nominees from each state/UT was based upon a formula that gave an equal weighting to urban population and the number of statutory towns (MoUD 2015). This formula resulted in a minimum of one proposed smart city in 21 states/UTs to a maximum of 13 proposed smart cities from the State of Uttar Pradesh.

Based upon the recommendations from the state governments, the 100 smart cities were announced by the GOI in May 2015 (India TV News Desk 2015; MoUD 2015) (see Fig. 9.6). Several cities were added to and deleted from the original 100 Smart City list. The 100 smart cities were then assisted by consultants to draft a proposal based upon the strategies discussed above. Following submission of the smart cities proposals, a panel of experts evaluated the proposals and selected the first cohort of Smart Cities. The first group of 20 smart cities, announced in January 2016, is currently receiving government funding to help implement their plans (Ruparel 2016). Following this first cohort, two more cohorts of 40 cities each will be chosen from the initial list of 100 smart cities and developed after a two-year gap between each phase (Smart Cities Project 2016). Unexpectedly, however, the GOI recently selected an additional 13 stage-2 cities (Kumar 2016).

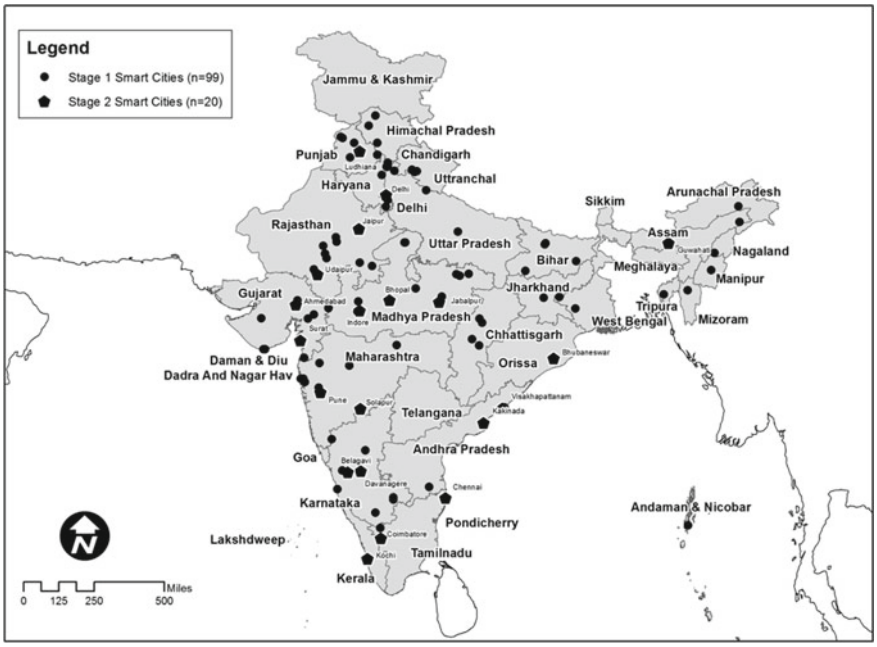

Fig. 9.6 Smart Cities in India. *Source* Authors

9.4.1 New Delhi's Smart City Plan

New Delhi was one of the first 20 cities in India to be designated a Smart City under India's Smart Cities Mission. New Delhi is the capital of India and is one of five governmental agencies that combine to govern the larger area of metropolitan Delhi (see Fig. 9.7). With a population of approximately 300,000 residents, New Delhi is quite small compared with the population of Delhi (estimated to be around 20 million). The municipality was established in 1931 to serve as the colonial capital for the British in South Asia, replacing Calcutta. The main economic activities of the city include public administration, finance, and tourism. The city is home to more than 145 foreign embassies and international organizations and, as a result, much of the population is transient. Table 9.2 provides an overview of the basic population and socioeconomic conditions in New Delhi.

Under the recently developed Smart City Plan, New Delhi envisions itself as "a Global Benchmark for a Capital City". Citizens helped to create a list of issues that need to be addressed, including improvements to the city's physical infrastructure (access to clean water, uninterrupted power supply, and solving the problem of congested roads); social problems (access to education, healthcare, and programs to improve residents' skills); and tackling air pollution, especially in light of the 2015 WHO ranking that listed Delhi's air quality as the worst globally for large cities.

Fig. 9.7 New Delhi Area Map. *Source* Authors

The Smart City Plan for New Delhi combines retrofitting of the central city area around Connaught Place and several other Pan-City Projects in the wider jurisdiction of New Delhi. Projects to improve the physical infrastructure in the central city area include implementing smart parking technology, transforming electric poles into "smart poles" that provide LED light, CCTV, and Wi-Fi access points, and providing

"happiness areas" for citizens. "Happiness areas" can range from park space to small urban relaxation areas for all residents. In addition, the retrofitting plan for the area around Connaught Place includes transforming public toilets into smart public amenity centers and also campaigns to change citizen's behavior regarding driving habits, waste/recycling, etc. (Smart City New Delhi 2016). The proposed Pan-City Projects include developing and implementing a smart grid for energy, water, and waste management and the further development of E-governance. Much of the citizen input into the plan was garnered through social media and other online avenues. One of the more interesting ways New Delhi sought community input into the planning process was through a poster competition among school-age students in the community.

These efforts hope to transform New Delhi into a more sustainable urban environment for residents, businesses, and visitors. If successful, the plan will help reduce pollution, increase pedestrian activity, improve the availability of water and energy, and create a more responsive municipal government. However, some have expressed concern that only a limited population will be affected by these efforts, since New Delhi is a very small component of the larger Delhi region. Furthermore, since New Delhi was built as a planned colonial capital at the beginning of the twentieth century and it caters to a more affluent and influential population, many of the issues faced by most cities in India are not a major concern for New Delhi's municipal officials.

9.4.2 Jaipur's Smart City Plan

Jaipur, in the State of Rajasthan, was part of the first cohort of 20 "smart" cities selected for funding by the GOI. Jaipur is Rajasthan's capital and largest city, with the 2001 census estimating a population of slightly more than 3 million (see Fig. 9.8 and Table 9.3). The city is also known as a popular tourist destination and heritage area, and it was originally laid out according to accepted planning principles (Verma 2006). As a result of the paint color used on the city's buildings to welcome the

Table 9.2 New Delhi population and socioeconomic characteristics

2011 Population	257,803
2001 Population	179,112
Population growth rate	43.9%
Literacy rate	90.9%
Slum population	7.8%
Electricity and latrines	85.0%
Electricity and no latrines	13.9%
No electricity and latrines	0.24%
No electricity and no latrines	0.94%

Source GOI Census of India (2011)

Fig. 9.8 Jaipur Area Map. *Source* Authors

Prince of Wales and Queen Victoria on their tour of India in 1876, Jaipur is known as the "Pink City of India" (Sachdev and Tillotson 2002).

Jaipur's Smart City Plan was created with the help of Mott MacDonald, a global management, engineering, and development consultant, with headquarters in the United Kingdom (Mott MacDonald 2016). The Smart City Plan was ranked third-

best by the GOI. It is centered on two Smart Strategies: City Renewal and a Pan-City Initiative, with a vision statement of "Jaipur Smart City aspires to leverage its heritage and tourism, through innovative and inclusive solutions, to enhance the quality of life" (Jaipur 2016).

Jaipur's citizens—tens of thousands of them—actively contributed to the Smart City Plan. Outreach techniques consisted of traditional meetings, ward-level consultations, public presentations at colleges and universities, SMS polling, and internet and social media platforms such as a dedicated website to the project, a Facebook page, Twitter account, Gmail account, and WhatsApp posts (Jaipur 2016). The public input from these community engagement efforts resulted in a focus on transport, tourism, and solid waste management within the Pan-City Strategy, specifically the implementation of a city-wide solid waste management system that would include modules such as route optimization, fleet management, and the registration of recyclers.

The City Redevelopment Strategy proposal for a portion of the walled city incorporates heritage and tourism, transportation, and sustainable/smart civic infrastructure ideas. The area under consideration for redevelopment includes more than 700 acres in the core of the city, which is a major tourist destination. As a result of the traffic generated in this area, the City Redevelopment Strategy would include a variety of public transport components (e.g., bicycle sharing, pedestrian improvements, electric rickshaws, smart parking technologies, etc.) to help alleviate congestion. A public bicycle sharing effort was scheduled to start by June 2016, but as of the printing of this chapter has yet to begin (Smartadmincp 2016). The proposal also calls for the use of smart technologies to improve the tourist experience in Jaipur, such as a "smart heritage walk" with kiosks that provide information to guests, QR codes that can be scanned with smart phones on monuments and displays, public Wi-Fi, CCTV to improve public safety, misting stations from recycled rain water harvesting, air quality monitoring, and improved lighting (Jaipur 2016).

Jaipur's Smart City Plan is ambitious and combines improvements to traditional public infrastructure (i.e., sanitation, sidewalks, public transportation, lighting) and more innovative technology-driven smart strategies. As a result, it is easy to see why

Table 9.3 Jaipur population and socioeconomic characteristics

2011 Population	3073,350
2001 Population	2322,575
Population growth rate	32.3%
Literacy rate	84.34%
Slum population	10.5%
Electricity and latrines	96.3%
Electricity and no latrines	2.6%
No electricity and latrines	0.6%
No electricity and no latrines	0.5%

Source GOI Census of India (2011)

Jaipur's proposal scored higher than other proposals. It will be interesting to see if the basic infrastructure discussed within the plan gets implemented before the smart-technology "bells and whistles" demanded by citizens—it is hard to lobby for smart kiosks and misting stations for tourists when the trash does not get picked up on a regular basis (Stanley 2015).

9.4.3 Challenges Confronting India's Smart Cities Mission

The implementation of India's Smart Cities Mission has not been without challenges. Recent reports have claimed that only 3% of projects have been completed within 2 years of their launch in 69 cities (first two rounds) (Joshi 2016; Nath 2017). The ability to approve, fund, and implement projects that will make a genuine difference in the urban sustainability of India's cities continues to be a problem facing India's national, state, and local governments.

Another major drawback of the Smart Cities Mission is the focus on area-based development, rather than reforming the entire city. While Smart Cities Mission plans must include a city-wide element, most of the emphasis is on small areas of the city that will be revitalized, redeveloped, or developed and, as a result, benefit only a chosen few. It is therefore questionable how this area-based approach will help make the entire urban area "smarter."

Additional criticisms include the multiplicity of urban development schemes that have been launched by both previous and current governments. The sheer volume of government programs seeking to improve the urban conditions within Indian cities adds layers of bureaucracy and administration, thus making it hard to implement programs. Finally, the Smart Cities Mission has also been criticized for utilizing Special Purpose Vehicles (Joshi 2016). By relying upon a Public-Private partnership, the local government has been excluded from the process, raising questions of accountability. In the end, the Smart Cities Mission has numerous challenges to overcome and the only coming years will tell if that is possible.

9.5 The Urban Future and Conclusions

India's urban population is expected to increase to 800 million by 2050. This is almost three times the entire current population of the United States. Providing adequate housing, safe and reliable water and energy, efficient solid waste management, and a myriad of other basic urban services and infrastructures will be a monumental challenge, considering the current quality and level of service across the subcontinent. With that said, this level of urbanization also brings with it the potential to improve the quality of life for almost a billion people by making a conscious decision to grow differently.

Beginning in the 1990s with green building rating systems (e.g., LEED-India and GRIHA) and more recently with the Smart Cities Mission, India's urban development is taking positive steps to deliver an alternative urban future by implementing sustainable urban development. By taking into account India's climate, historical building practices, natural resource limitations, and other in situ realties, future urban growth can be designed more harmoniously. Business as usual, often sprawling and unconnected, will not be possible and could potentially be perilous. However, understanding the scale of the problem and forward thinking may set India on a course for future greatness.

In addition to the problem of rapid population growth within its urban environs, India's limited natural resources mean that implementing sustainable urban development is all the more imperative. First, providing reliable energy solutions may lie in the country's ability to move to renewable energy sources, since India accounts for roughly one quarter of the world's population with no access to electricity (IBM 2016). Water availability is also an existing and continuing problem—no Indian city has piped water available 24 h a day, 7 days a week (IBM 2016). Embracing technologies and implementing systems that reduce and recapture water can provide hope for the future. Finally, pollution problems confronting India's cities can be alleviated through a combination of increased public transport options, transition to clean energy solutions, and utilizing environmental friendly materials in the construction process. The WHO estimates that half of the world's most polluted cities are currently found in India (Bengali 2016). But hope exists in the form of the programs outlined in this chapter.

The three urban sustainability programs discussed here all tackle different problems associated with making India's cities more sustainable. First, the green building programs in India seek to transform the built environment in which India's urban populations reside, work, and shop. Meanwhile, the aim of AMRUT Yojana is to improve existing cities, especially for economically disadvantaged classes of the urban population, by extending basic urban infrastructure to all citizens. Finally, the Smart Cities Mission is seeking to develop world-class cities so that they can provide technology-based, modern, and sustainable services to citizens. An additional goal of the Smart Cities Mission is to increase investment from Public-Private Partnerships, thus generating more employment opportunities. In sum, LEED-India, GRIHA, and the Smart Cities Mission all embrace standards of development that seek to create a more livable urban future.

The larger political history and forces behind urban development policy in India must also be understood. The institutions that have traditionally been part of urban development in India have been national and state agencies and actors that have ebbed and flowed with changing political fortunes. Historically, weak local government bodies have been unable to gather the funding and support to make improvements at the local level, but have had to rely upon GOI and state support and leadership.

The central government's two dedicated ministries are Ministry of Urban Development (MoUD) and Ministry of Housing and Urban Poverty Alleviation (MHUP). Schemes like JNNURM and AMRUT are carried out by MoUD, while organizations such as National Buildings Association (NBO) and Housing & Urban Devel-

opment Corporation (HUDCO) come under MHUP. At a district level, offices are aligned with central government objectives to carry out urban development activities. Finally, Urban Local Bodies (ULBs), become the main organization to implement the schemes on ground.

The completion of work by the ULBs has tended to lag behind the central government's schedule of rolling out of schemes. It is claimed that this delayed approach causes much loss of revenue. Greater transparency and efficiency between the states and ULBs would eventuate if the approach were bottom-up rather than top-down (Joshi 2016). In many cases, ULBs do not have authority to deal with environmental issues such as finding suitable space to establish garbage disposal sites, and both ULBs and the state-level organizations are poor at addressing grievances.

As a result, a new model being implemented in India utilizes public and private partnerships (PPPs) to deliver the urban development programs that are so desperately needed. National and state politicians and entrepreneurs are beginning to realize the economic advantages of using PPPs to administer, construct, and manage much-needed public infrastructure. For example, the Smart Cities Mission is utilizing Special Purpose Vehicles (SPVs), a form of PPP, to manage the proposed "smart" projects. PPPs have been criticized for lack of transparency, limited local government/citizens input, and a disregard for communities' needs; indeed, India's new-found reliance on PPPs to deliver urban change has helped to create a market-driven urban densification that is pushing marginalized populations out of prime real estate across India's cities.

India's urban future is far from decided and building upon the programs discussed in this chapter can improve the quality of life for hundreds of millions of people. However, more work is needed to ensure a brighter future. The public and private sectors need to work together to overcome existing deficiencies in many basic services that are taken for granted in the developed world. By practicing sustainable urban development, India can become a model country that sets the standards for urban sustainability for future generations.

References

ADaRSH. (2016a). Association for Development and Research of Sustainable Habitats. About GRIHA. http://www.grihaindia.org/?t=Green_Rating_for_Integrated_Habitat_Assessment#&Green_Rating_for_Integrated_Habitat_Assessment. Accessed December 10, 2016.

ADaRSH. (2016b). Association for Development and Research of Sustainable Habitats. GRIHA for Large Development. http://www.grihaindia.org/index.php?option=com_content&view=article&id=93&t=Green_Rating_for_Integrated_Habitat_Assessment. Accessed 10 December 2016.

ADaRSH. (2016c). Association for Development and Research of Sustainable Habitats. GRIHA Prakriti. http://www.grihaindia.org/index.php?option=com_content&view=article&id=116&t=Green_Rating_for_Integrated_Habitat_Assessment. Accessed December 10, 2016.

ADaRSH. (2016d). Association for Development and Research of Sustainable Habitats. GRIHA Rating. http://www.grihaindia.org/index.php?option=com_content&view=article&id=87&t=Green_Rating_for_Integrated_Habitat_Assessment. Accessed December 9, 2016.

ADaRSH. (2016e). Association for Development and Research of Sustainable Habitats. SVA GRIHA. http://www.grihaindia.org/index.php?option=com_content&view=article&id=86&t=Green_Rating_for_Integrated_Habitat_Assessment. Accessed December 9, 2016.

Batra, L. (2009). *A review of urbanization and urban policy in post-independent India*. Working Paper Series, Centre for the Study of Law and Governance. Jawaharlal Nehru University, New Delhi.

Bengali, S. (2016). 22 of the world's most polluted cities are in India. *The Los Angeles Times.* http://www.latimes.com/world/asia/la-fg-india-polluted-cities-20160512-snap-story.html. Accessed December 11, 2016.

Brown, J. M. (1984). *Modern India: The origins of an Asian democracy*. New Delhi, India: Oxford University Press.

Brueckner, J. K. (2000). Urban sprawl: Diagnosis and remedies. *International Regional Science Review, 23*(2), 160–171.

Brundtland, G. H. (1987). *Report of the World Commission on environment and development: "our common future"*. United Nations.

CoStar Group. (2008). Commercial real estate and the environment. http://mts.sustainableproducts.com/Capital_Markets_Partnership/BusinessCase/costar-green-study.pdf. Accessed December 12, 2016.

Design Associates Inc. (2016). Who we are. http://www.designassociates.in/who-we-are/. Accessed December 11, 2016.

Donath, M. (2014). World cities, home to most people, to add 2.5 billion more by 2050: U.N. http://www.reuters.com/article/2014/07/10/un-population-cities-report-idUSL2N0PL1B120140710. Accessed July 13, 2014.

Edwards, B. (2006). Benefits of green offices in the UK: Analysis from examples built in the 1990s. *Sustainable Development, 14,* 190–204.

Eichholtz, P., Kok, N., & Quigley, J. (2010). Doing well by doing good? Green office buildings. *American Economic Review, 100,* 2494–2511.

Glaeser, E. L. (2011). *Triumph of the city*. New York, NY: The Penguin Press.

Gnaneshwar, V. (1995). Urban policies in India—Paradoxes and predicaments. *Habitat International, 19*(3), 293–316.

GOI JNNURM. (2011). Jawaharlal Nehru National Urban Renewal Mission (JNNURM). Overview. http://jnnurm.nic.in/wp-content/uploads/2011/01/PMSpeechOverviewE.pdf. Accessed February 17, 2016.

GOI. (n.d.[a]). Amrut Yojana. Atal Mission for Rejuvenation and Urban Transformation. http://amrut.gov.in/. Accessed December 9, 2016.

GOI. (n.d.[b]). Amrut Yojana. Atal Mission for Rejuvenation and Urban Transformation. http://amrut.gov.in/writereaddata/The%20Mission.pdf. Accessed December 9, 2016.

GOI. (n.d.[c]). Amrut Yojana. Atal Mission for Rejuvenation and Urban Transformation. http://amrut.gov.in/writereaddata/Institutional%20Capacity%20Building.pdf. Accessed December 9, 2016.

GOI Census of India. (2011). Population enumeration data. http://censusindia.gov.in. Accessed December 9, 2016.

GRIHA India. (2016a). Home. http://www.grihaindia.org/?t=home&#&home. Accessed December 10, 2016.

GRIHA India. (2016b). Design Associates Inc. case study. http://www.grihaindia.org/images/casestudies/pdf/SVA-GRIHA_DesignAssociates-Noida-UP.pdf. Accessed December 11, 2016.

GRIHA India. (2017). *Office Building of Design Associates Inc.* [Photograph]. Retrieved from: http://www.grihaindia.org/images/casestudies/pdf/SVA-GRIHA_DesignAssociates-Noida-UP.pdf.

Gupta, K. (2007). Urban flood resilience planning and management and lessons for the future: A case study of Mumbai, India. *Urban Water Journal, 4*(3), 183–194.

IBM. (2016). The urban effect. https://www.flickr.com/photos/ibm_media/7983056412/?cm_mc_uid=85330281795914812160085&cm_mc_sid_50200000=1481216008. Accessed December 10, 2016.

IGBC. (2013). Indian Green Building Council. Annual review: 2012–2013. http://www.ezinemart.com/igbc/annualreview/home.aspx. Accessed December 8, 2016.
IGBC. (2016a). Indian Green Building Council. Scorecard. https://igbc.in/igbc/. Accessed December 9, 2016.
IGBC. (2016b). Indian Green Building Council. Annual review: 2015–2016. https://igbc.in/igbc/html_pdfs/aboutGBC/IGBC_Annual_Review_2015_2016.pdf. Accessed December 8, 2016.
IIHS. (2012). Indian Institute for Human Settlements. Urban India 2011: Evidence. https://www.citiesalliance.org/sites/citiesalliance.org/files/IUC%20Booklet%20on%20Indian%20cities.pdf. Accessed December 8, 2016.
India TV News Desk. (2015). Know all 98 'smart' cities approved by Modi government. http://www.indiatvnews.com/news/india/know-all-100-upcoming-smart-cities-of-india-50276.html. Accessed December 9, 2015.
ITC. (2016a). Indian Tobacco Company. ITC Portal. http://www.itcportal.com/businesses/hotels.aspx. Accessed December 8, 2016.
ITC. (2016b). Indian Tobacco Company. First on Earth. http://www.itcportal.com/businesses/hotels.aspx. Accessed December 9, 2016.
ITC. (2016c). Indian Tobacco Company. ITC hotels conferred LEED Platinum rating. http://www.itchotels.in/Others/press-release/102/ITC-hotels-conferred-LEED-Platinum-rating.aspx. Accessed December 8, 2016.
Jaipur. (2016). Smart City Proposal. http://www.smartcitiesprojects.com/jaipur-smart-city/. Accessed May 10, 2016.
Jones, M. P., & Hunt, W. F. (2010). Performance of rainwater harvesting systems in the southeastern United States. *Resources, Conservation and Recycling, 54*(10), 623–629.
Joshi, B. (2016). Smart Cities Mission: Flaws in a flagship programme. *The Hindu*. http://www.thehindu.com/opinion/op-ed/Smart-Cities-Mission-Flaws-in-a-flagship-programme/article14406724.ece. Accessed July, 10 2017.
Kumar, P. (2016). Lucknow tops in fast track competition of smart cities selection. http://www.smartcitiesprojects.com/lucknow-tops-in-fast-track-competition-of-smart-cities-selection/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+smartcitiesprojects%2FtNKL+%28Smart+City+Projects+In+India%29. Accessed June 21, 2016.
Kumar Roy, P. (2014). How a hotel chain led green buildings in India. http://www.usgbc.org/articles/how-hotel-chain-led-green-buildings-india. Accessed December 8, 2016.
Levine, A. D., & Asano, T. (2004). Recovering sustainable water from wastewater. *Environmental Science and Technology,* 201A–208A.
Lindfield, M. (2010). Cities a global threat and a missed opportunity for climate change. *Environment and Urbanization Asia, 1*(2), 105–129.
Long, M. (2015). LEED for existing buildings in India advances with new solutions. http://www.usgbc.org/articles/leed-existing-buildings-india-advances-new-solutions. Accessed December 11, 2016.
McKenzie, D., & Ray, I. (2009). Urban water supply in India: Status, reform options and possible lessons. *Water Policy, 11*(4), 442–460.
Mott MacDonald. (2016). About us. https://www.mottmac.com/about-us. Accessed May 5, 2016.
MoUD. (2015). Ministry of Urban Development, GOI. Smart City: Mission Statement and Guidelines. http://smartcities.gov.in/writereaddata/SmartCityGuidelines.pdf. Accessed January 17, 2016.
Nandi, S., & Gamkhar, S. (2013). Urban challenges in India: A review of recent policy measures. *Habitat International, 39,* 55–61.
Nath, D. (2017). Less than 3% of projects under mission completed. *The Hindu.* http://www.thehindu.com/news/national/less-than-3-of-projects-under-mission-completed/article19137389.ece. Accessed July 10, 2017.

O'Neil, S. (2013). 25 years of sustainability in India with ITC Hotels. *Green Hotelier.* http://www.greenhotelier.org/destinations/asia-pacific/25-years-of-sustainability-in-india-with-itc-hotels/. Accessed December 10, 2016.

Owen, D. (2009). *Green metropolis: Why living in smaller, living closer, and driving less are the keys to sustainability*. New York, NY: Riverhead Books.

Pitt, D. R. (2010). Harnessing community energy: the keys to climate mitigation policy adoption in US municipalities. *Local Environment, 15*(8), 717–729.

Pucher, J., Korattyswaropam, N., Mittal, N., & Ittyerah, N. (2005). Urban transport crisis in India. *Transport Policy, 12*(3), 185–198.

Ruparel, A. P. (2016). 'Smart' cities: Closer to execution, but challenges galore. http://indianexpress.com/article/india/india-news-india/smart-cities-closer-to-execution-but-challenges-galore/. Accessed January 15, 2016.

Sachdev, V., & Tillotson, G. H. R. (2002). *Building Jaipur: The making of an Indian city*. Reaktion Books.

Sahni, S., & Aulakh, R. S. (2014). Planning for low carbon cities in India. *Environment and Urbanization Asia, 5*(1), 17–34.

Sankhe, S., Vittal, I., & Mohan, A. (2011). Urban giants India and China, and their urbanization paths. *Environment and Urbanization Asia, 2*(1), 1–12.

Shaw, A. (2009). Town planning in postcolonial India, 1947–1965: Chandigarh re-examined. *Urban Geography, 30*(8), 857–878.

Smart Cities Projects. (2016). All Smart City draft proposals. http://www.smartcitiesprojects.com/all-smart-city-drafts-proposals/. Accessed January 10, 2016.

Smartadimcp. (2016). Smart city Jaipur public bicycle sharing project before June 15. http://www.smartcitiesprojects.com/smart-city-jaipur-public-bicycle-sharing-project-before-june-15/?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+smartcitiesprojects%2FtNKL+%28Smart+City+Projects+In+India%29. Accessed April 4, 2016.

Smart City New Delhi. (2016). New Delhi Smart City Proposal. http://smartcities.gov.in/writereaddata/winningcity/NDMC_SCP.pdf. Accessed December 10, 2016.

Smith, R. (2015). 'Green' building in India: A comparative and spatial analysis of the LEED-India and GRIHA Rating Systems. *Asian Geographer, 32*(2), 73–84.

Sohail, S. (2017). *Surat: Best practices.* [Photograph]. Retrieved from http://www.downtoearth.org.in/coverage/waste-smart-cities-54119.

Stanley, J. (2015). India's "Smart Cities" Challenge has fans, detractors. http://nextcity.org/daily/entry/bloomberg-india-smart-cities-funding. Accessed January 15, 2016.

Swaniti. (2015). Atal Mission for Rejuvenation and Urban Transformation—Flagship Scheme. http://www.swaniti.com/wp-content/uploads/2015/11/AMRUT-Brief-Final-.pdf. Accessed January 10, 2017.

Tewari, M., Godfrey, N., et al. (2016). *Better cities, better growth: India's urban opportunity*. New Climate Economy, World Resources Institute, and Indian Council for Research on International Economic Relations. London, Washington, DC, and New Delhi. http://newclimateeconomy.report/workingpapers. Accessed January 10, 2017.

Travel Delhi.com. (2017). *ITC Maurya, Delhi.* [Photograph]. Retrieved from: http://www.travel-delhi.com/maurya-hotel-newdelhi.htm.

Turab, Y. (2013). LEED-India vs. GRIHA: What is the cost of green building certification in India? http://www.ytenterprises.com/the-blog/leedindiavsgrihawhatisthecostofgreenbuildingcertificationinindia. Accessed December 12, 2016.

UN. (2014). United Nations, Department of Economic and Social Affairs, Population Division. *World urbanization prospects: The 2014 revision, highlights* (ST/ESA/SER.A/352). New York, NY: United Nations.

US Conference of Mayors. (2014). U.S. Conference of Mayors Climate Protection Agreement. http://usmayors.org/climateagreement/Final%20USCM%202014%20Mayors%20Climate%20Protection%20Agreement.pdf. Accessed December 9, 2016.

Vasandani, B. (2010). LEED vs GRIHA—putting Indian developers in a quandary. https://bharatvasandani.wordpress.com/?s=leed+vs+griha. Accessed December 8, 2016.

Venkateswarlu, U. (1998). *Urbanisation in India: Problems and prospects*. New Delhi: New Age International.

Verma, L. N. (2006). *Urban geography*. Jaipur: Rawat Publications.

Von Paumgartten, P. (2003). The business case for high-performance green buildings: Sustainability and its financial impact. *Journal of Facilities Management, 2*(1), 26–34.

Wedding, G. C., & Crawford-Brown, D. (2007). Measuring site-level success in brownfield redevelopments: A focus on sustainability and green building. *Journal of Environmental Management, 85*(2), 483–496.

Wheeler, S. (1996). Sustainable urban development: A literature review and analysis. Monograph 51. Berkeley, CA: Institute of Urban and Regional Development.

Part III
Future

Chapter 10
The Sino-Southeast Asian–Australasian Necklace: Critical Junctures, Branding Cities, and Entrepreneurial Leadership

Anthony K. C. Ip and Thomas Yip

Abstract The ending of WWII saw a new regional order in Asia, as western colonialism steadily faded. The founding of the Association of Southeast Asian Nations (ASEAN) in 1967 was a hallmark of cooperative development, with membership increasing from the original five states to the present ten. The ASEAN+3 cooperating countries now encompass China, Japan, and Korea, while other economies may join in the near future (ASEAN+, including Australia and New Zealand). The well-developed nation-states of Australasia have long recognized that they are a part of Asia and have been playing active roles, accordingly, since the 1970s. The collective spirit of cooperation and entrepreneurship of all leaders, the vast natural resources, and diverse cultures and history will, if properly governed, overcome many of the present hardships. In this chapter, what we propose as the Sino-Southeast Asia Necklace has the potential to develop into a huge regional economy outside of North America and Europe. With unique economic and geopolitical potential, the Hong Kong–Macau–Pearl River Delta (HK-MO-PRD complex, with Hong Kong as the Super-Connector of China), Laos (epicenter in Indochina), and Darwin (Gateway to Australia) are the gems chosen as exemplars to demonstrate challenges and opportunities facing the Asia Pacific Rim. We identify some of the environmental factors and knowledge gaps from the Hong Kong perspective, summarize the development implications, and set some of the conditions for a paradigm shift in cultural change to enable more profound development.

Keywords ASEAN · Australia · Darwin · China · Hong Kong
Laos · Macau · Pearl River Delta

A. K. C. Ip (✉) · T. Yip
New Asia Arts & Business College, 6 Farm Road, Tokwawan, Kowloon, Hong Kong, China
e-mail: Newasia.design@gmail.com

B. Grant et al. (eds.), *Metropolitan Governance in Asia and the Pacific Rim*,
https://doi.org/10.1007/978-981-13-0206-0_10

10.1 Hong Kong–Macau–Pearl River Delta: Pearl of the Orient, Asia's World City, Super-Connector and World-Class Megalopolis

10.1.1 Introduction: South China Cultural City-Region; Culture of Change

With mainland China's growth easing to what is arguably a sustainable pace (see, for example, Bradsher 2018), high expectations continue for the Tier One Cities in the Beijing-North Corridor, Yangtze River Delta, and Hong Kong–Macau–Pearl River Delta (HK-MO-PRD). The decolonization in 1997 was a watershed for Hong Kong, but the subsequent two decades have seen a call for a culture of change among Hong Kongers, particularly on innovations that would need to be customized, based on locally, regionally, or globally unique factors and resources. Comprehensive studies (see, for example, Yeh et al. 2006) highlight the need to pay more attention to missing Pearl River Delta resources and development opportunities, but knowledge diffusion has been inadequate and the impact is hardly felt. Our discussion sets out some of the resources required to nurture Hong Kong as a potential "Super-Connector" at both city-regional and individual levels, based on a grounded approach (Denzin and Lincoln 2017). It explores the megacities in the Pearl River Delta, the pericenters, and subregions, such as the five-counties, which have had strong links with overseas Chinese for over 200 years, particularly in North America. Within the geographic region (see Fig. 10.1), we identify a series of critical junctures in creating a culture for change in innovation which would see HK-MO-PRD better capture development values through city-regional leadership, thereby becoming a Super-Connector and potential megalopolis.

10.1.2 Juncture A: Hong Kong's Sea–Air Connectivity, National and City-Regional Historical Contexts, and Innovation

If HK-MO-PRD City-Regional Regional Development is viewed from a territorial perspective, it can be interpreted as an "Object-Landscape" through a "Gaze" (Urry 2011). Such a perspective could guide both new development and a sense of belonging, viewing land as a key resource, alongside the industry, business, tourism, and other sectors in China. Other trajectories, particularly those that focus upon the physical elements of city image (Lynch 1960) and upon romantic landscapes (Jackson 1996), can stretch across the territory.

While the Hong Kong–Zhuhai–Macao (HK-ZH-MO) Bridge will extend for 42 km across the PRD en route to ZH-MO and the five-counties (see, for instance, Au-Yeung and Sam 2015), the pericenters have differentiated themselves over time

Fig. 10.1 Major cities in the Pearl River Delta (*Source* Authors)

into "Garden City," "Entertainment City," and "Diulao Towns". They are smaller and more dispersed, however, than the "Big 4" (Hong Kong, Guangzhou, Shenzhen, and Dongguan), with the "Diulaos" representing their overseas Taisan[1] diaspora, who remitted money back home for construction, mostly in the 1800s–1970s.

Hong Kong experienced exceptionally high growth from the end of the 1950s until the 1980s, often led by exports to the Americas and the West. Thereafter, most industries migrated to lower cost PRD as a result of China's "Open Door, Economic Reform" policy. Since the 2000s, Hong Kong has sustained its strengths in finance, infrastructure, education, tourism, and reputation. However, it has increasingly become a monolithic financial and service center, which is responsible for over 80% of its GDP. Many opportunities in research, technology, and innovations have been diverted to neighboring Shenzhen. Hong Kong's leaders are urged to become more innovative if Hong Kong is to become a modern or postmodern city in the competitive era of the 2020s.

[1]Taisan is one of the five-Counties in the PRD.

10.1.3 Juncture B: The Pearl River Delta's New Economy, Balanced Development, Governance, and the Ascent of China

Meanwhile, neighbors such as Shenzhen have narrowed the gaps and changed from manufacturing to high-tech cities. Shenzhen was awarded the designation of "City of Design" in 2008 (see Ogan and Xiangming 2016). In the next decade, it will have over ten universities with numerous research labs (for a discussion, see Chen and Kenney 2007). The Qianhai area of Shenzhen is becoming a Free Trade Zone (FTZ), specifically for Hong Kong and Macau investors and startups, with more flexible policy incentives, such as professional qualifications reciprocity. Shenzhen has its own stock exchange and another one for startups (Growth Enterprises Market Board). It is exploring e-Financial mechanisms, including cross-border stock trading and currency exchange with Hong Kong (Macau SAR Government 2016). Both Shenzhen and Hong Kong are jointly developing the Lok Ma Chau Loop–Huangguan Border Checkpoint, and an 80-ha science and high-tech park is being planned for joint ventures between Shenzhen and Hong Kong in upstream research and development (R and D), supported by a higher education cluster (Cheung 2012). Shenzhen is considered the most innovative and entrepreneurial city in China, and Macau and Shenzhen have been contemplating much closer city-regional development cooperation since 2016 (Macau SAR Government 2016; see also Shen and Lou 2013).

The leadership of former Macau Chief Executive Edmund Ho has brought in phenomenal Foreign Direct Investment (FDI) in entertainment, tourism, and cultural creative industries since the 2000s (Ip 2012). As a former Portuguese colony, Macau is often touted as having the charms of a Southern Mediterranean town, overlaid with the Lingnan cultural genres. Many churches and Chinese temples can be found in this "Las Vegas of the Orient," with the St Paul's Cathedral cluster and its grand steps as a central attraction. Recently, it was able to lease 100 ha of land on the Hengqin Island from the Zhuhai Special Economic Zone (ZHSEZ) to build the new University of Macau campus, which became operational in 2013 (University of Macau 2014). After returning to the People's Republic of China in 1999, Macau has grown four times in size, mostly by reclaiming coastal land (Grydehøj 2015).

Meanwhile, the city of Dongguan has grown to over 10 million people (see, for example, van Mead 2017) with a highly skilled labor force (Leuthje 2017). Since the 2008 financial crisis, it has restructured to become a Second-Tier industrial city with relatively lower costs than Shenzhen. With close proximity to the provincial capital city of Guangzhou, it has taken in Original Equipment Manufacturing (OEM) and has diversified from electronics to other more advanced sectors, such as nanotech, IC chips, and others (Lai et al. 2005). A representative industrial park is the Dongguan Xiongshan Lake Technology Park, which houses high-tech giants like Huawei on its 72 km^2 site (Lin 2013).

Recently, the city of Nansha has been annexed into Guangzhou as a subcenter. While modern mega-container tankers require a port with deeper berths, Nansha has taken new roles, with heavy industries such as chemical production and supporting

industries and research units (Wu 2007). It is sponsored by longtime investors from the Fok Ying Tung family with established businesses in Hong Kong, Macau, along the Pearl River Delta, and Hainan Island (see, for example, Bloomberg 2018). Aside from freight, the port may also accommodate mega passenger cruisers in the future. A High-Speed Rail (HSR) and mass transit rail station are planned at the Humen Bridge near Nansha for easy access, where the Hong Kong Polytechnic University (HKPolyU) will have a new campus.

With intensive growth, Guangzhou has developed on the south banks of the Pearl River to include significant infrastructure facilities, exhibition centers, trading hubs, and new towns. The City-Regional Development Framework is shown in Fig. 10.2.

Since the 1980s, HK-MO-PRD has responded well to globalization, open door, and economic reform amid the dominance of the core economies, and the G7 City-regional synergies and opportunities are apparent in this region during the increasingly well-established One Belt, One Road era. The concept of "Pan-PRD" includes more cities and areas for planning. Nevertheless, Hong Kong would need to transform and adapt more to the ever-changing environmental factors. Arguably, with China as the second-largest economy in the world and a member nation of the G20, many of the rules of the game have changed. With China's Belt-Road initiative, HK-MO-PRD must be visionary in perceiving its future in both wider and more specific contexts.

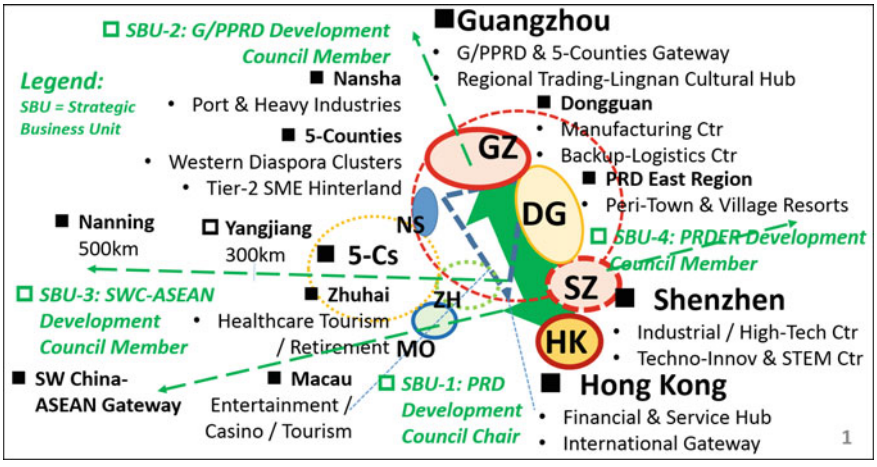

Fig. 10.2 Hong Kong-MO-Pearl River Delta: City-Regional Development Framework (*Source* Authors)

10.1.4 Juncture C: Enhancing HK-MO-PRD Competitiveness, City-Regional Development Models, Branding, and Entrepreneurial Talents

HK-PRD could become more competitive by exploring multiple roles and multiple development strategies for change. By going beyond comparative advantage in a static sense, it could proactively strive for competitive advantage so as to attain a holistic effect. A humanistic approach is, arguably, sadly lacking. While neoclassical key production factors refer to land, labor, and capital, we should add technology and incorporate a holistic view of human capital by placing more stress on talents with a strategic mindset beyond productivity.

East of Hong Kong–Pearl River Delta, it is necessary to respond to "2 Coasts, 4 Places" development trends. There is a need to develop networks in PRD, South China, and Taiwan on internship by encouraging Generations Y and Z to participate. By doing this, young people will develop networks and become familiar with the cross-border environment. Toward the west, Zhenjiang–Hainan and Nanning–Guangxi have traditionally had fewer links to Hong Kong–Pearl River Delta, despite the advantage of their use of Cantonese. However, access has been improved by the recent introduction of the HSR. Higher mobility for mass tourism and maritime education in the Asian region may see the Seawise University operating through HK-MO-PRD being reinvented.

Innovative City-Regional Development models are demonstrated by ASEAN and further in Australia and Timor. As a former "Little Dragon," Singapore initiated the Singapore–Johor–Riau (SIJORI) Triangle some 20 years ago, based on the triangulation model. Singapore entered into discussions with Indonesia in 2004 about leasing the Batam Island and adjacent islands by stages, so it could relocate its low-value manufacturing industries and leave the main island state to focus on high value-added production and services. The two countries signed the Framework Agreement on Economic Cooperation in the islands of Batam, Bintan, and Karium in 2006 (Ministry of Foreign Affairs 2006). ASEAN has expanded during the 2000s with multiple forms of partnerships, the latest being the ASEAN–Hong Kong, China Free Trade Agreement and the ASEAN–Hong Kong, China Investment Agreement in November 2017 (ASEAN 2017a). In 2010, the Timor–Indonesia–Australia Growth Triangle (TIA-GT) became an embryonic cooperative structure (see, for example, Government of Timor-Leste 2016), while East Timor is considering joining the ASEAN as a "Late-Flying Goose," positioned as a resource-based manufacturing center. The closest distance from East Timor to Darwin's Tiwi Islands is 411 km. These precedents provide some lessons.

10.1.5 Discussion: City-Regional Governance and Catalysts

During the financial crisis in 2008, the Central Policy Unit (CPD) of the Hong Kong government suggested a need to pay more attention to Southwest China, ASEAN, and beyond (Wong et al. 2008). In complementing each other, the Big Four may well reach out and spill over toward the west, to the five-Counties and further. More complex governance would make the region more competitive, and we suggest the following:

- *Establish a Joint PRD Council (JPRDC)*

A Joint PRD Council (JPRDC) would be a platform to explore, formulate, and advise on strategies on regional economic development, but it would lack executive authority. By rotating its chair among the member cities and regions, undue political influence would be minimized. To effectively support this regional organization, the central government could host wider regional and international conferences in Hong Kong to coincide with JPRDC activities. Hong Kong should strive to lead the Council in the early stages in order to enhance its stature as Asia's "World City."

- *Develop a Joint PRD Innovation System (PRD-InnovSys)*

A PRD-InnovSys would seek to promote innovation for the PRD region. Tapping into an assortment of genres from the arts and sciences, under the one organization, would support commercialization of workable and feasible concepts, projects, products, research, and development outcomes. This organization might cut across the helix of government, industry, university, and social sectors, and preferably be a quasi-public agency with a holistic and long-term vision and a deep sense of mission. Reference should be made to similar organizations internationally, often referred to as national innovation systems or equivalent organizations at regional–local levels.

Various groups such as industrialists, officials, academics, social entrepreneurs, and startup venture capitalists could provide new platforms and new synergies for exploring innovation and for fostering a positive culture for change. Activities might include adapting the liberal education and prerequisite systems to fill the gaps in knowledge and skills and providing briefings on the development of China and transformation of Confucianism to fit modern society.

Such PRD-InnovSys mechanisms would begin to "train-the-trainers" to maximize the multiplier effects. Second-tier trainers would receive support from the InnovSys office and would be entitled to certain policy incentives. It should be noted here that generating and capturing value requires more than just reputation, rule of law (see Lewis and Hammerich 2013), and enhancement of ethics. Motivations to innovate become more important for a reactive culture. As a whole, it will be the beginning of a potential Human Development System of "brain, farm, and beehive" (see Ip and Yip 2015).

- *Establish a Hong Kong Regional Office of the Asia Infrastructure Investment Bank (AIIB)*

A Hong Kong regional office of the AIIB would strengthen the AIIB Headquarters in Beijing, particularly on regional development and on ASEAN and Australasia initiatives. It could tap into and attract more of the rich resources in Hong Kong, including financial and innovative entrepreneurial talents. Other international organizations—such as the Asia Development Bank—might be encouraged to do the same.

- *Develop ASEAN Education and Training Schemes for Hong Kong Talents*

Such a training scheme would create new learning opportunities for local youths and those in mainland China and Taiwan. By moving from their base in Hong Kong, students will better understand the adjustments needed in a multicultural and complex environments, such as language, political and economic systems, and corporate and technological environments.

10.1.6 Summary: The Strategic Road Forward: "Cultural Fit" and a Win–Win Strategy

In summary, Hong Kong has to reposition itself to assume multiple roles through diversification, taking into consideration the tremendous development opportunities in China, ASEAN and Asia, and beyond. In so doing, its leaders in both the public and private sectors could take the initiative to realize positive changes at critical junctures. In the face of a more competitive world toward the 2020s, time is running out for HK-MO-PRD. While the government of Hong Kong has tremendous power and financial resources, the private sector, particularly those players with scale, may wish to enhance their work on Corporate Social Responsibility (CSR). Universities may also wish to coalesce for a more collective stance on R and D, while the social sector contributes to work of a more voluntary and self-developmental nature, that is, social enterprise. By strengthening the HK-MO-PRD, all stakeholders will have a better chance to achieve a win–win solution. Then, this super-region could be one step closer to achieving the status of a potential Super-Connector and a megalopolis.

10.2 Vientiane-Central Laos: Land of One Million Elephants, Last-Flying Geese, ASEAN Connector, and Leapfrogging Development Cluster

10.2.1 Introduction: The Land-Locked, Late-Flying Goose, First Human Natural Resource Center

Laos is one of the Late-Flying Geese of Indochina and ASEAN and is transforming from a land-locked to a land-linked country (Knuckey 2014). Despite the lack of maritime advantages, its central location (see Fig. 10.3) and long borders have helped to develop new links with the entire Indo-Chinese Peninsula, beyond its historical contexts. By forming a north–south link from Kunming-Southwest China to its capital of Vientiane, Laos traverses an east–west economic corridor through the new Savannakhet Special Economic Zone (Kuchiki and Tsuji 2008; Laos Government Office 2012). At this stage, Laos is blessed with a relatively natural and largely agricultural landscape, dotted with development potential. It is also influenced by its immediate neighbors and earlier Flying Geese such as Thailand and Vietnam. These

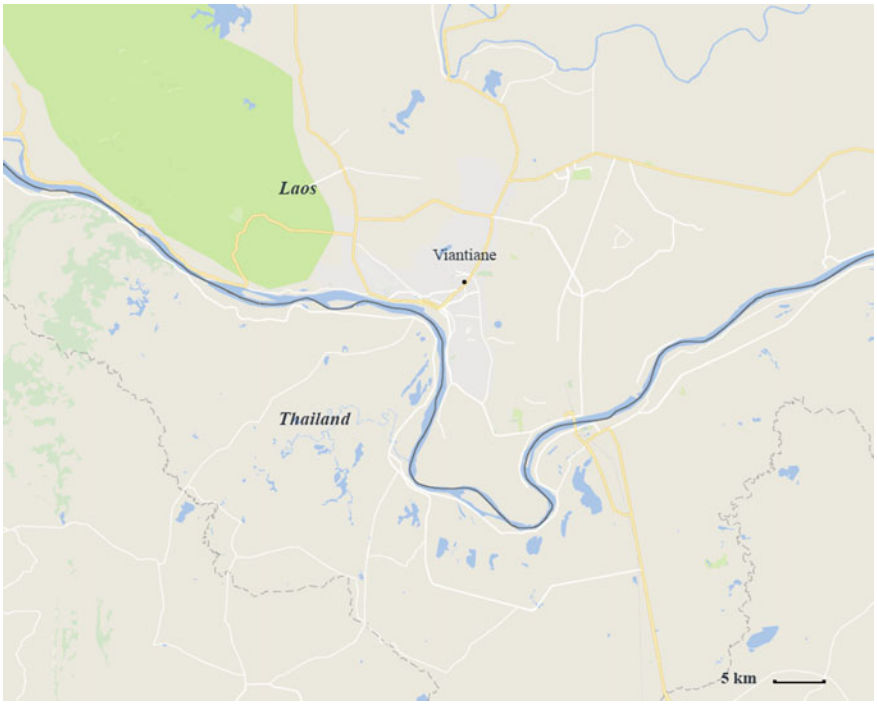

Fig. 10.3 City of Vientiane (*Source* Authors)

countries, in turn, are aware of the success of Japan's government-supported development, since the 1950s (see, for example, Amsden 1991) and China's export-oriented development model used from 1978 to 2008, which was then followed by more focus on domestic consumption and outbound investment (see, for example, Wang and Zhao 2017). Globalization has seen Laos become a key investment destination for China, Hong Kong, Taiwan, Japan, Korea, and Thailand in infrastructure, energy, minerals, information and communication technology, manufacturing, and agriculture (see Goto 2011; Phimphanthavong 2012). The ASEAN network is providing other multidimensional development platforms, for example, higher education and training, that cut across all other development efforts (see, for example, SEMCO n.d.). With frequent flooding in Thailand, Laos's higher elevation has meant that it has also become a processing area for midstream production, mainly in low-skilled labor such as garment manufacturing (Rasiah et al. 2011). Major poppy farms in the north of the country have largely been transformed into rubber plantations, putting the land to legitimate and productive use (Laungaramsri 2012).

10.2.2 Juncture A: Land-Linked and Connectivity; City-Regional Advantages

Laos occupies a plateau bordered on the west by the Mekong River (International Center for Environmental Management 2010), a significant natural feature with a major impact on development. Extending from the Lancang River in Southwest China, upstream valleys and mountains with steep gradients are ideal sites for a series of dams and reservoirs that generate electricity for export, such as the Xayaburi Dam (Biba 2012). The Midstream Mekong crosses major east–west transport links and is an economic corridor with a node at Savan, a relatively modern city with commercial, retail, entertainment, and tourism industries—arguably, an ASEAN Paradise that shares its characteristics with other advanced ASEAN cities. Further south lies Cambodia, in somewhat flatter but still varied topography with large lakes, such as Tonle Sap. Tourism by river cruises is possible by crossing borders. This ASEAN connectivity allows tourists and other travelers, such as developers, investors, professionals, and intellectuals (desiring in-depth knowledge) to experience the area from a regional perspective. The transformation of the regions on the Mekong provides an excellent study site for economic and technological development, thus balancing romantic and pragmatic ideals from a continuum of advanced to developing economies (Jackson 1986; Tuan 1990).

The urban centers of Vientiane and Luang Prabang differentiate themselves as a Capital City and a World Heritage Site. The area surrounding Vientiane has several major Special Economic Zones (SEZs), such as That Luang Marshland and Vientiane Industrial Parks. While development of the former has involved reclaiming a large tract of wasteland at the eastern fringe of the city center, the latter is located 18 km from the center of the capital and covers an area of 2000 ha. With 41 SEZs

developing in Laos, China is a major investor for some time (see Stuart-Fox 2009). This has facilitated the development of various sectors that require major investments, including a modern university campus and research and development (R and D) facilities. With a United Nations World Heritage Site designation, Luang Prabang has tremendous potential as a symbol of national importance. From the perspective of urban design, cultural industries, and tourism planning, the potential application of the five elements (node, landmark, path, district, and edge) of Lynch (1960) might be worth considering.

Aside from Buddhism, Laotians have diverse and strong traditions and, arguably, a national cultural integrity. Much room for expansion exists in education and training. The late adoption of technology, characteristic of Late-Flying Geese, is an advantage because the country is less constrained by previous technical standards. In the past few years, Laos has hosted international events for ASEAN and other organizations, with high-profile guests like Barack Obama and Xi Jinping (China Daily 2017; NBC News 2016). Constantly working with organizations like the Asia Development Bank (see ADB n.d.) has necessitated the use of English as a second language among officials and executives. Laos is moving toward a better balance of global and local integration, but it will need to develop international practice standards, such as quality assurance on education, to pave the foundation for a knowledge economy.

10.2.3 Juncture B: Water, Energy, Economy, Livelihood, and Balanced Development

- *Human–Economic–Environmental Interface*

Near Vientiane, the That Luang Marsh Special Economic Zone has been transformed from an urban wasteland into a new comprehensive industrial, residential, and leisure/recreational community (Vongpraseuth and Choi 2015). With a site of 2200 ha and a large artificial lake for recreation and drainage in the center, it has provided 30,000 jobs and is a showcase of a human–ecological interface—although it has not been beyond controversy (Vongpraseuth and Choi 2015). Upstream on the Mekong is the Xayaburi Dam, the largest of some 20 other dams along the river, with a power-generation capability of over 1200 kW (Biba 2012). Aside from this involvement, Sinohydro is involved in both hydroelectricity production and the provision of earth-moving equipment in developing similar projects throughout Laos (Biba 2012). However, the traditional river fishing way of life has been greatly affected, although there are now plans to explore alternatives such as dedicated fish farms and spawning species that will thrive in reservoirs (Biba 2012).

- *Nature–Economic Interface*

Further north, near the "Golden Triangle" at Thailand–Burma–Laos borders, more land parcels have become rubber plantations (Laungaramsri 2012). The Koreans have substantial investments in these plantations to feed their major car production lines

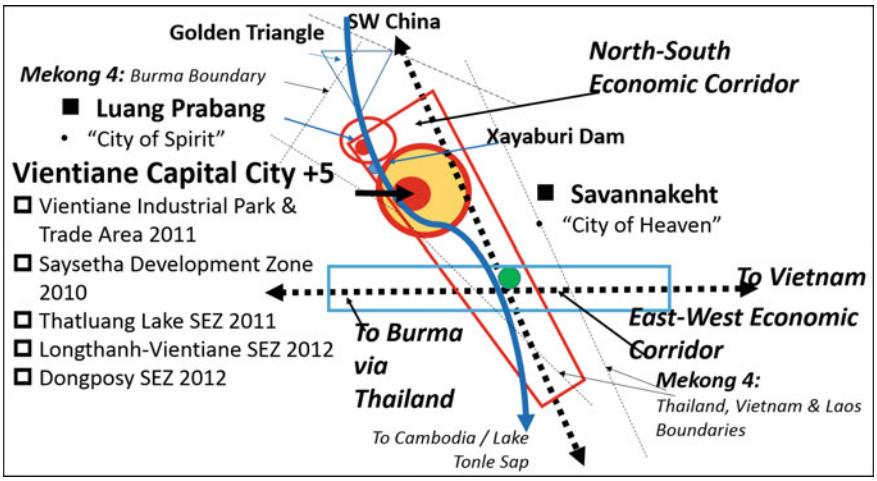

Fig. 10.4 Vientiane-Central Laos Epicenter: City-Regional Development Framework (*Source* Authors)

in Bangkok (Norasingh 2013). This area also shares deposits of precious metals, such as copper, sapphire, and gold, which have also attracted FDI (see, for example, Gunawardana 2008). A major Hong Kong listed investor, Sepon, owns some of the largest copper mines (MMG Limited 2014), while other mines are owned or controlled by militia and are difficult to access in extremely remote areas (Stuart-Fox 2006). Other potential locations for investment are the primeval forests that are relatively inaccessible and pose health risks, and thus difficult for investors and operators to develop. With a GDP growth rate of about 7.8% over the last decade (World Bank 2017), industrial chains would progressively align with new Laos Economic Corridors and other ASEAN members, which are attracted by HSR, highways, centers, and nodes. The Development Framework of Vientiane-Laos is presented in Fig. 10.4.

10.2.4 Juncture C: Enhancing Branding and Entrepreneurial Talents

As a Last-Flying Goose, Laos desperately needs higher education to train appropriate skills to propel modernization and industrialization. While the ASEAN Education Networks (see SEMCO n.d.) can provide almost immediate platforms for exchanges, major investors and employers from China, Japan, and Korea must also be catered for. Kunming–Vientiane would provide an excellent link for Southwest China, which has strong ties with the Mekong Four (Burma, Thailand, Vietnam, and Laos).

A possible partner is Korea. Some of its institutions in cultural and creative industries, with media and information and communication technology capabilities, are

now highly ranked internationally (see, for example, ITU 2017). With a common heritage of Buddhism, these industries in China and Korea can complement each other in scope and scale by forming multiple partnerships. Arguably, Korean cultural entrepreneurs and professionals have a track record of identifying unique parts of their history and heritage for enhancement, rather than being excessively absorbed in globalized, standardized, and undifferentiated products. Korean media productions, injected with subtle profiles of their unique history and heritage, can brief the viewers on their forefathers and nation builders.

In order to respond to globalization, Australasia and the West can also play a role by introducing the English language and benchmarks of good governance in sectors such as agriculture, mining, indigenous tourism, western cultures, and business practices, modern healthcare, and particularly innovative higher education. Australasia can act as an intermediate platform to the western world, and also provide credibility and quality assurance. The National University of Laos could develop an International College near its campus that would facilitate sharing while minimizing costs and maximizing benefits. More innovative examples of education could include extending Buddhist temples' religious classes for the monks to incorporate humanities subjects organized by formal schools; a business school in downtown Vientiane; and a research and development hub in a Special Economic Zone (SEZ). The Vientiane City-Region could be a unique, multidimensional "study lab and showcase kitchen" and a "learning region" for the Quadruple Helix of ASEAN (Douglass 2016; Fatimah et al. 2012; Kearns 2015; Pang and Wong 2016; Xayamoungkhoun 2008).

10.2.5 Discussion: Indochina, ASEAN and Hong Kong-Pearl River Delta Connectivity and Entrepreneurship—A Laotian Perspective

- *Cultures and Social Values*

The themes of Laotian-Hmong ethnic and historic cultural trails through the migration waves from Tibet, via Southwest China and into Indochina could be the basis of a possible brand associated with ASEAN and China. Overlying this could be HK-MO-PRD's east–west entrepreneurship and the development of a potential new City-Region,[2] supported by a series of "Road-Belt" initiatives. Aside from Kunming, an alternative ASEAN–China development center is located in Nanning-Guangxi, complete with maritime advantages with an expanding port. This place is popular with the Cantonese dialect as an alternative to Putong. With the HSR, it is possible to participate in activities and return on the same day to and from Hong Kong.

[2]The Chinese currency Yuan (RMB) is widely accepted in cross-border trades in the Golden Triangle. The Fudian Bank in Kunming, Yunnan is actively involved in economic development in the region by forming a joint venture called the Laos-China Bank (LCB) and by issuing various bankcards.

- *Learner Mobility and the Quadruple Helix*

Aside from business opportunities, we stress the nurturing of younger generations by enhancing their mobility. The formation and development of the Laos National University (NUL 2013) and its relationships with the ASEAN education networks should be studied, with particular emphasis on quality assurance and qualification.

Over time, Australia has also developed its distinctive double majors in cultural creative industries, plus information communication and technology, law and other disciplines, including science, technology, engineering, and mathematics (see, for example, ATC 2013). Subjects on ASEAN could fit in well with its innovative and rich development programs. Research in these areas could address topics that are currently not emphasized in professional and administrative education. In brief, Laos is just starting its human talent development almost as a zero-sum game, and there must be a lot of new opportunities.

- *Healthcare and Cultural Tourism*

Laos is entering a high-growth stage and strengthening its health insurance laws, yet its healthcare system still allows wide disparities in quality of life between urban and rural areas (see, for example, WHO 2015). In aligning urbanization with industrialization, the establishment of an SEZ or major industrial park will require new healthcare facilities and services for the growing population. Presently, only 75% of Laotians have access to primary care and life expectancy for both male and female ranges from 61 to 65 years (WHO 2015). Past Chinese experience of "Barefoot Doctors" (Zhang and Unschuld 2008) is worth exploring for the very remote and socioeconomically disadvantaged areas. China's continuous healthcare reforms have enjoyed an integration with western medicine.[3] With ASEAN and Mekong four networks in place, healthcare policy-makers in Laos may consider the idea of a "Healthcare Tourism Social Enterprise" by tapping the potential of the ports, linkages, healthcare facilities, and cultural tourism destinations in Vietnam, Thailand, and Cambodia. It could go further into maritime regions with mega cruisers, where scale could spread the costs among thousands, for example, those who have to pay dearly for regular medical checkups, Cruise routes could include many Asian countries. The southern end of this maritime nexus may be located near the potential Tiwi–Timor Link, which is close enough for Australasia's active involvement. Both the US and China have hospital ships in operation, for example, the "Mercy" and "Peace Ark" (Mercy Ships n.d.), and medical, science, business, and tourism students could have a new "floating classroom," a part of the Seawise University or equivalent. Finally, in the face of endangered species, Laos could reposition itself from a historical "Land of a Million Elephants," with a conservation and environmental capacity area for a National Park. All this could be the foundation of a social enterprise.

[3]For example, the Royal Australasian College of Surgeons already has teams operating in Laos on Reconstructive Surgery (see, for example, INTERPLAST n.d.). The operation may extend to include the "Receiver and Providers" list, i.e., expand the scope of services to continuing education for local professionals. Telemedicine in Australia may use Laos and Indo-Chinese experience to advance its own knowledge base.

- *ASEAN-Laos, Regional Development Paradigm, and Other Cooperating Partners*

Populism and myopic ideas such as trade barriers as a result of financial declines in some regions may not last long, but globalization and regional cooperation are here to stay. Individual organizations, particularly private firms and units, have to bear most of the costs associated with rebuilding networks. It is time for Asia to build this "Necklace," not only to sustain Asian development but also to return vitality to the international community. As an illustration, Britain may reinvent its previous opportunities in Asia after Brexit. We already see Hong Kong Bank's intention to return from London to Hong Kong and list as a global financial institution, as they have realized that major economic growth is in Asia, rather than Europe (Noonan 2017).

- *Culture for Change*

In creating multidimensional stimuli, catalysts, sponsors, and governance, the aforesaid "study lab and showcase kitchen" as a Learning City-Region may provide the geopolitical conditions for Laos as a special "ASEAN Connector." At this stage, Laos has had the foresight to put its Ministry of Investment, Planning and Development under one roof (MPI 2014) and activities are probably more streamlined and better coordinated than for most late entrants. Abilities to host conferences for important regional ministries, and international leaders such as Li Keqiang, Shinzo Abe, and Barack Obama, have helped to brand Laos. The addition of a smaller international college with a flat organizational structure will make the National University of Laos (already with 26,000 students) more flexible to initiate international and diverse partnerships. Perhaps only a small portion of young Laotians will have the opportunity to study regional and international development at postgraduate level, but others can take advantage of lifelong education and other ways of studying. While the ASEAN arrangements are moving to freer borders, some 40% of the Laotian population still live in poverty (World Bank 2017). Another 926,427 of intra-ASEAN unskilled migrants can be found in Thailand (Sugiyarto and Mendoza 2014). Perhaps only better jobs, housing, education, and training opportunities will encourage them to return to their homeland, and the Model of Cross-Cultural Communication (Lewis and Hammerich 2013) may be useful in predicting such an outcome, and thus developing a new and more globalized Laos.

10.2.6 Summary: ASEAN-Laos: Learning Region, ASEAN-Laos.LearnNet

Now, more than ever, our focus is on the development of "soft power" and a "culture for change." Common values on based upon shared challenges and opportunities have made ASEAN stronger in Asia (ASEAN 2011). It is important to effectively and efficiently create and diffuse knowledge, resources, and tools to market these ideas, especially to young Laotians and related stakeholders. Centrally located on the Mekong River and across from Thailand, Vientiane needs to capitalize not just on its natural resources, but also on human talents in the Vientiane City-Region. Cooperative partners could contribute to economic development (investment), technology (transfer, diffusion), and political/legal (governance) processes, and enrich the diverse cultural (social) values). With a population of some 800,000, Vientiane could become an effective and efficient City-Region, capable of innovating and creating new jobs in both scale and scope, based on its own resources, human capital, and vision, while achieving a stronger, sustainable and resilient trade and intellectual regime. In brief, it would be desirable for Vientiane and the City-Regions of Laos to enhance synergies with Hong Kong-MO-PRD and Darwin-Australasia by sharing broad and common regional development policies, goals, and objectives as part of Asia.

10.3 Darwin-Northern Territory: Northern Tip Eco-Wallacea Triangle, Connected Infrastructures Showcase, New Asia Gateway and Hinterland

10.3.1 Introduction: Synergies of Northern Coast of the Southern Continent, Asia's Alternative Hinterland, Historical Bio-Eco Resource Region

Australia entered a development watershed in the 2010s by further embracing Asia and diluting its British and European roots. The Northern Territory (NT) is envisioned as a hinterland to its northern neighbors, particularly as a knowledge base in advanced sciences, technologies, and education (see, for example, Australian Government 2015; Gerritsen 2016; Hoong 2016). Major cities in the southeast, principally Sydney and Melbourne, will become more urbanized and better connected when the envisioned HSR project is completed (for details, see DIRDC 2017). Australasia, with its unique Gondwanan flora and fauna and proximity to the palaeoecologically significant Wallace Line, is an ideal location for ecotourism that could incorporate cruises along the east coast of Malaysia and Indochina and northeast to Taiwan. Australia's abundance of natural resources, such as minerals, energy (coal; natural gas), and lumber, have drawn major investors and operators, and have seen ports developed

that are required to process and transport both raw materials and semifinished goods. Larger operations have become small specialized towns in past 50 years; Darwin has developed from just a small frontier town in the proximity of Timor, part of which is Indonesian territory, to become Australia's "Gateway" to Asia and vice versa (see Fig. 10.5), attracting human and financial resources in and out of Australia (see, for example, Pinkerton et al. 2015; Wu 2011).

The Australian government estimates the country's population will be 24.5 million by 2030 and 62.2 million by 2101 (Australian Government 2015). In Darwin, a large Marine Industry Park is being developed, with space already reserved for HSR (Land Development Corporation 2016). With an area of 17,000 km^2, the NT Economic Zone traverses the states of Western Australia and Queensland, to the west and east of the NT, respectively, and is actively marketed to investors (Australian Government 2015). Ongoing activities are reviewing the development opportunities, discussing business, and developing partnerships. Arguably, for the past 40 years, Australia has generated a momentum and empathy to reflect its development vision and relations with Asia.

Fig. 10.5 City of Darwin and East Timor (*Source* Authors)

10.3.2 *Juncture A: Toward Sea–Air Connectivity, National and City-Regional Paradigm*

Australia's progressive development of its northern region and connectivity with Asia has generated great interest (Australian Government 2015) and has not been without controversy (see, for example, Betts 2016; Wade 2015). Darwin and its immediate environs, including the Marine Industry Park, new communities, and land developments, have been marketed intensively, pointing to the City-Regional Development paradigm. The port of Darwin has recently expanded from freight and naval docking to one for mega cruisers, and the port has been leased to a Chinese company (Betts 2016; Wade 2015). Marine tourism has proven to be popular for pleasure, education, and research (see, for instance, Tourism NT n.d.).

"Darwin on the Top" is becoming a possible "New Asian Gateway." Timor, Indonesia, and Australia agreed in 2010 to form a Growth Triangle (TIA-GT) (Government of Timor-Leste 2016). In anticipating Timor joining the ASEAN, the area is striving to become a resource-based manufacturing center. Australia has historically supported Timor with higher and professional education (DEFAT n.d.), and this will intensify and expand into different areas. Major FDI in Indonesia is from Japan, Korea, and China, with a few joint ventures such as Toyota, Suzuki, Nissan, General Motors, Ford, and Tata (Gammeltoft and Tarmidi 2013). The industry chains extend to iron ore, bauxite, and copper mining sites, where the raw materials are also semi-processed. This will minimize the hauling distance of bulk materials (Dutu 2015). In short, the synergies between resource-rich Northern Australia on the one hand and industry-rich Southeast Asia on the other are ripe for further development.

The strings of islands in Indonesia may allow it to further enhance its infrastructures and connectivity with Singapore and Malaysia on the peninsula and the north coast of Australia. Current and new investments will have more opportunities for horizontal and vertical integration on their value chains. TIA-GT shares the common development view on "You in Me, Me in You:" by actively engaging in the "learning by doing processes" it is progressing toward a culture for change.

10.3.3 *Juncture B: Resource and Techno-Economy, Balanced, and Collaborative Developments*

Indonesia is a major technology importer and the second-largest recipient of aid from Australia (DEFAT 2017). The major channels of international technology transfer to Indonesia are imports of capital goods and participating in world trade through exports. A Trilateral Higher Education Round Table held in Darwin among TIA-GT in Darwin in 2014 discussed possible cooperation (CDU 2014). Collaborative projects in high-tech industries with Japan and China could create new synergies, such as energy, ICT, aeronautics, and HSR. For instance, project experience could be shared on the Darwin River Dam, the Xayaburi Dam in Laos, and the Yangtse River

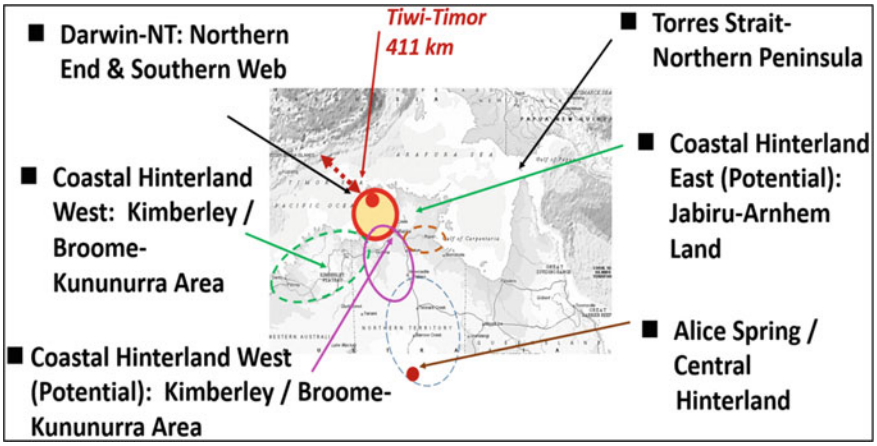

Fig. 10.6 Darwin-Northern Territory City-Regional Development Framework (*Source* Adapted from *Daily Reckoning*; kind permission granted by Alan Dale)

Three Gorges Dam in China. Digital technologies for Industry 4.0 and Smart Cities can be provided by China at relatively lower costs, as shown in ASEAN (see, for example, Wong and Chan 2003; Yi 2017). Aspects of east–west healthcare, such as Traditional Chinese Medicine (TCM) could be explored, and the 2015 Nobel Prize in Medicine on the herbal Artimisinin anti-malaria drugs have drawn worldwide attention (Su and Miller 2015). Thus, Darwin-NT can provide a human–technology interface for sharing and learning by ASEAN and Asian countries. The City-Regional Development Framework of Darwin-NT is shown in Fig. 10.6.

10.3.4 Juncture C: Current Advantages, Future Branding Talents

Darwin-NT's current advantage is mainly the aforementioned 900-ha Marine Industry Park (Land Development Corporation 2016), a major showcase of the initial development stage of this City-Region. The Marine Industry Park, together with a smaller 130-ha Business Park, is targeting the area's vast marine resources. At this early stage, it is focusing on fisheries and related food processing, offshore energy and related chemical work, and freight and logistics, including a pre-planned Australasia Station/Track. A sizable Convention Center will help promote the City-Region and its related businesses.

It is necessary to align human input with the stages of development, movements, trends, and various environmental forces. To date, closer relationships with ASEAN have led to Early-Flying Geese, such as Japanese and Singaporean nationals, having more flexibility to live and work in Australia. This means that their jobs will be

in the "upstream" (R&D/Design) and "downstream" (Marketing/Sales) business and industrial processes. The "midstream" jobs will be mostly in the ASEAN+economies and Asian economies, where semiskilled labor is generally abundant. The proposed projects and programs will generate synergies among stakeholders of the Quadruple Helix.

10.3.5 Discussion: Sectors and Roles, Darwin-NT and Asian Perspectives

Several sectors have key roles in ensuring the sustainability of the Darwin-NT development: Higher Education, Emerging Technologies, and Socioeconomic Leadership (Entrepreneurship). This chapter has made reference to non-Australian City-Regions that are active competitors and/or partners. We have considered specific competitive advantages such as location, cost, profit, basic amenities, and the added value derived when these factors are combined, and we have explored successful cases, whose common goal is to minimize costs and maximize value for their innovative products.

Provision of aid by the healthcare sector to Dili, the capital of East Timor (INTERPLAST n.d.), is being phased out, to be replaced by concurrent self-help training to strengthen local engagement (DEFAT n.d.). Vocational training will allow the East Timorese to acquire knowledge and skills for new jobs created in nursing and medical technology, for example. For rural services, the Chinese "Bare Foot Doctor" model is an exemplar for developing nations. It is anticipated that some kind of cultural transformation is expected as, arguably, they are accustomed to a tribal culture amid a natural environment.

The education sector should encourage young people to develop a strong sense of belonging in a frontier area. They must be provided with enough opportunities to prevent them simply returning to the big cities in the more comfortable southeast. Charles Darwin University could play the role of Super-Connector beyond education, with a more innovative role, such as investor, entrepreneur, and catalyst to spearhead impactful and constructive development (Christensen and Eyring 2011). The Regional Universities Network (see RUN 2018) comprises mostly new generation institutions in Australia: Central Queensland University, Southern Cross University, Federation University, the University of New England, University of South Queensland, and Sunshine Coast University. Australia has the advantage of providing quality assurance for its Asian partners. Some of the RUN institutions have separate cooperative efforts with Asia and/or ASEAN (see, for example, Curtin University 2017), and cooperation with the ASEAN Education Networks or equivalents would reflect similar progress on the ASEAN–China Alliance in 2015.

Notably, with some 22,000 students, Charles Darwin University is not part of RUN. As Darwin's population grows, one suggestion is to set up a small college—or upgrade an existing one—with a global and regional focus, with no more than 4000 students. Limiting the college size will facilitate closer relationships between students

and faculties for future networking. A flat organizational structure will encourage streamlined operations and more innovative endeavors. With desires from Chinese students for early entrance, options such as the K–12 Asia Foundation Program, Asia's International Baccalaureate to fit Generations XYZ, and X-Border Programs, such as 3 + 1 or 2 + 2. A consortium of institutions might also facilitate inter-school transfers.

10.3.6 Summary: New Asia–ASEAN Resource Center, Innovation Lab and Development Paradigm

Australia and Darwin-NT have progressed their unique vision of City-Regional Development, achieving milestones through intensive R and D and community engagement. In taking its own path, Darwin-NT has arguably emerged as one of the most important City-Regions, particularly when we take into consideration that ASEAN and China formally collaborated in 2015. With the advantages of proximity and techno-economic innovations, Darwin-NT has the potential of few other western nations to promote its soft power positioning and progress a culture of change for the region, a prerequisite for innovation and development as we move toward the 2030s. In doing so, Darwin-NT will elevate its status nationally, provide more opportunities for all stakeholders, and showcase a new development paradigm that might diffuse to others in the region.

10.4 Forming a City-Region Necklace, Repositioning Hong Kong, Recapitulation of Innovations to Capture Value

The three city-regions of Hong Kong, Vientiane, and Darwin have all gone through common colonial eras, with varied British and French influences. Darwin, and indeed the rest of Australia, has a mainly Anglo-Saxon and European population, but the cultural balance is changing. It makes sense, therefore, for Darwin-NT to become Asia's hinterland, particularly for Singapore with it's long-term historical cultural and educational ties in the region generally, its mature governance, and its affluence. Hong Kong–Pearl River Delta's historical connections through the Nanyue King with Indochina are limited only by North Vietnam, and the Hmongs in Vientiane-Central Laos have developed a comfortable livelihood on the Mekong River while being influenced by Thailand and Vietnam as Early-Flying Geese. Branding has been directed toward nature and indigenous cultural tourism, with an emphasis on Buddhism.

As discussed above, Laos has learned about positive development from its close neighbors and China in the past two decades. In joining the ASEAN in 1997 and has been progressively working with the Asia Development Bank and other international

Fig. 10.7 Hong Kong-MO-PRD: Multiple roles, robust positioning of talents and culture (*Source* The Authors)

and regional organizations on infrastructure, industrialization, and modernization. Laos's governance and project developments require prudent financial plans, yet at the same time, they are open-minded, cost-conscious, time-bound, and innovative. The advent of the HSR will accelerate the development of continental Asia, and the former more isolated national economies will be superseded. Development on groups of islands will face the challenge of high costs and the need to attract populations. China's latest HSR development, with relatively lower costs and viable financing schemes, has become competitive. Further development of the HSR or its variations in collaboration with, Japan, Korea, and Australasia may even outshine European counterparts.

Within itself, HK-MO-PRD is well-connected, and development thrusts are diffusing into Zhanjiang and Nanning to the west. If this City-Region envisions itself as a highly competitive megalopolis, the potential multiple roles and robust positioning in Fig. 10.7 can be achievable. Further south, the One Belt, One Road development, and infrastructures for TIA-GT may have a better chance if both China and Australia become strategic partners. In forming this City-Region Necklace, HK-PRD has several roles to play, with their combined strengths in finance, international trade, management, technologies, and manufacturing capabilities.

The Great Bay development concept was proposed by the Guangdong provincial authorities in 2017, with the blessing of Beijing (see, for example, Lee 2017; NDRC 2015). It looks like a progressive, world-class regional innovation hub beyond the usual PRD positioning.

Vientiane is a late entrant into the Mekong Four regional group, capitalizing on the river system for considerable development. It has continued with a socialist market development policy, but, as we have seen, with a strong emphasis on Foreign Direct Investment, energy, and basic manufacturing, agriculture, and tourism in the region. Bangkok, Thailand is the place to diffuse investments, technologies, and management

systems. However, the one million Laotians temporarily residing and working in Thailand must be relocated back to Laos as soon as possible. Vientiane-Central Laos must keep its active development policies to facilitate the policies.

Darwin-NT is well positioned as a potential hinterland for high growth in Asia. It is clear that Australia wishes to maintain good relationships with the US, the West, and high-growth Asia as a multilateral strategy (Department of Defence 2016). Its largely resource-based economy, with niche science and technology, makes it a good intermediary. The Darwin-NT Hinterland Development will require similar leadership with foresight and determination.

Aside from the said City-Regions, there is potential to add a few more gems onto the necklace, such as systems like the Zhanjiang–Nanning–Hainan Cluster, the Kra Canal-North Malaysia Economic Corridor, the Kuala Lumpur–Penang–Melaka Nexus, and the Singapore–Batam Island Cluster. Perhaps toward the 2030s, these will be one of the "Many Belts, Many Roads" linking one-third of the globe.

The ASEAN continues to become more sophisticated, with its multiple organizations, memberships, and diverse connectivity systems, sharing responsibilities in order to sustain development. As early entrants, Singapore and Bangkok have realized their learning processes and development policies. The city-state of Singapore's population has grown from 2.5 million to over 5.5 million in 20 years (Department of Statistics 2017). In 2016, its per capita income was US$53,053.262 per annum, compared with Hong Kong's US$42,963.401; in 1997, they were just about the same (IMF 2016). Singapore has now relocated most of its low-value manufacturing industries, warehouse, and ancillary uses to the Island of Batam in Indonesia (Wahyuni et al. 2012). It has released almost 1600 km^2 land for high value-added development, such as quality living downtown, high-tech parks, and offices for services (see Nikkei Asian Review 2017). Singapore's higher education system is among the top systems in Asia, complemented recently with international brands such as Yale, Massachusetts Institute of Technology, and Cambridge with the National University of Singapore (NUS n.d.).

Bangkok was an early entrant in industrial upgrading and sectors in cultural tourism (see, for example, Wisansing 2008). Japanese and Korean brands such as Honda, Hyundai, and Kia auto manufacturing, complete with integration by growing rubber plantations in the north to guarantee a stable supply, have all successfully found an offshore home in the city (Busser 2008). Bangkok has one of the best healthcare tourism sectors, with its US-qualified medical staff guaranteeing service quality and enjoying trust from American patients (Wilson 2011). On subregional cooperation, close to one million unskilled Laotians have temporarily worked and lived in Bangkok for some time (Pholphirul and Rukumnuaykit 2010) but, in the course of time, they should return to Laos. Thailand is helping Laos along many fronts, especially on channeling foreign direct investments to create jobs in Laos.

In the Jakarta–Bandung corridor, 140 km of HSR track was realized with China's participation in 2016, and the setting of Phase One is linking the most populated parts of the city (see Jakarta Post 2015). Strings of islands are located toward the east of Sumatra, where dozens of mining sites, industrial factories, and ports are planned, with some run by foreign multinationals such as Shell (see Shell n.d.). Indonesia

alone has a market of close to 260 million, the largest in ASEAN. Unique tropical tourism and landscapes have been attractions for several decades already (see, for example, Ross and Wall 1999).

10.5 Concluding Remarks

Metaphorically, the Necklace could be a roadmap for the economic development of East Asia, centering on the ASEAN+3. With the recent withdrawal of the US from the Trans-Pacific Partnership, some countries are considering changing roles (see, for example, ASEAN 2017b; Harding 2017). A major change could be the relative importance of China, which could refocus its efforts on its south—Guangdong, Guangxi, and several provinces in the southwest—as hinterlands. Next in the line could be Japan and South Korea, entering into a system of comprehensive economic cooperation as major Asian investors in technology, and as industry and business leaders. Australia has been talking to Indonesia along the same lines (Prime Minister of Australia 2017), with Darwin-NT positioned as Asia's hinterland with support from the urban southeast.

The need for appropriate partners for development in China is paramount. Educating and training more locals to participate in the process is crucial. Beyond Guangxi would be the Pan–Pearl Delta of several southwest provinces for more opportunities in infrastructure, agricultures, and tourism based on scenic beauty and minority cultures. The southwest region of China will work closely with ASEAN through Nanning as a trading and logistics hub. They would connect to the Americas across the Pacific and South Asia in varied directions as parts of the Roads-Belts. These are the parts of the Necklace we are talking about, enhanced by new resources, new people, new ideas, and new governance as a new development model.

References

ADB. (n.d.). Asia Development Bank. Laos PDR and ADB. https://www.adb.org/countries/lao-pdr/main. Accessed March 4, 2018.

Amsden, A. H. (1991). Diffusion of development: The late-industrialising model and greater East Asia. *American Economic Review, 82*(2), 282–286.

ASEAN. (2011). Master plan on ASEAN connectivity: One vision, one identity and one community. Jakarta: ASEAN Secretariat. http://www.asean.org/storage/images/ASEAN_RTK_2014/4_Master_Plan_on_ASEAN_Connectivity.pdf. Accessed March 4, 2018.

ASEAN. (2017a). ASEAN, Japan, reaffirm commitment to strong partnership. http://asean.org/%E2%80%8Basean-japan-reaffirm-commitment-strong-partnership/. Accessed March 5, 2018.

ASEAN. (2017b). The signing of the ASEAN-Hong Kong, China Free Trade Agreement and the ASEAN-Hong Kong, China Investment Agreement. http://asean.org/the-signing-of-the-asean-hongkong-china-free-trade-agreement-and-asean-hongkong-china-investment-agreement/. Accessed March 4, 2018.

ATC. (2013). Australian Trade Commission. *More than MOOCs: Opportunities arising from disruptive technologies in education*. Canberra: Australian Trade Commission. http://www.austrade.gov.au/Education/News/Reports/More-than-MOOCs–Opportunities-arising-from-disruptive-technologies-in-education#.VWZNEpOqqko. Accessed March 5, 2018.

Au-Yeung, A., & Sam, C. (2015). Three cities, one bridge. *South China Morning Post*. Updated 19 November. http://multimedia.scmp.com/bridge/. Accessed March 12, 2018.

Australian Government. (2015). Our north, our future: White Paper on developing Northern Australia. https://www.cdu.edu.au/sites/default/files/the-northern-institute/docs/northern-australia-white-paper.pdf. Accessed March 4, 2018.

Betts, A. (2016). Darwin Port lease Australia has "Nothing to Fear" Says Chinese Government. ABC [Australian Broadcasting Corporation] News. http://www.abc.net.au/news/2016-03-10/australia-nothing-to-fear-from-darwin-port-lease-says-china/7237218. Accessed March 4, 2018.

Biba, S. (2012). China's continuous dam-building on the Mekong River. *Journal of Contemporary Asia, 42*(4), 603–628.

Bloomberg. (2018). Company overview of Henry Fok Tung group of companies. https://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=206520549. Accessed March 4, 2018.

Bradsher, K. (2018, January 18). China's economic growth looks strong. Maybe too strong. *Business Day*. https://www.nytimes.com/2018/01/18/business/china-gdp-economy-growth.html. Accessed March 12, 2018.

Busser, R. (2008). "Detroit of the East"? Industrial upgrading, Japanese car producers and development of the automotive industry in Thailand. *Asia Pacific Business Review, 14*(1), 29–45.

CDU. (2014). Charles Darwin University. Trilateral higher education roundtable. http://www.cdu.edu.au/international/trilateral-roundtable. Accessed March 5, 2018.

Chen, K., & Kenney, M. (2007). Universities/research institutes and regional innovation systems: The case of Beijing and Shenzhen. *World Development, 35*(6), 1056–1074.

Cheung, P. T.-Y. (2012). The role of government in managing cross-boundary co-operation between Hong Kong and mainland China. In S. W. Chiu & S. Wong (Eds.), *Repositioning the Hong Kong government: Social foundations and political challenges* (pp. 187–218). Hong Kong: Hong Kong University Press.

China Daily. (2017). Chinese President Xi Jinping pays state visit to Laos. http://www.chinadaily.com.cn/world/2017-11/14/content_34524641.htm. Accessed March 4, 2018.

Christensen, C. M., & Eyring, H. J. (2011). *The innovative university: Changing the DNA of higher education from the inside out*. San Francisco: Jossy-Bass.

Curtin University. (2017). Indonesia. http://international.curtin.edu.au/scholarships-sponsorships/scholarships/australia-award-scholarships/indonesia/. Accessed March 5, 2018.

DEFAT. (2017). Department of foreign Affairs and Trade (Government of Australia). Australian aid budget summary 2017–18. http://dfat.gov.au/about-us/corporate/portfolio-budget-statements/Documents/2017-18-australian-aid-budget-summary.pdf. Accessed March 5, 2018.

DEFAT. (n.d.). Department of foreign Affairs and Trade (Government of Australia). Development assistance in Timor-Leste. http://dfat.gov.au/geo/timor-leste/development-assistance/Pages/development-assistance-in-timor-leste.aspx. Accessed March 5, 2018.

Denzin, N. K., & Lincoln, Y. S. (2017). *The SAGE handbook of qualitative research* (5th ed.). Los Angles: Sage Publications.

Department of Defence. (2016). Australian Government. 2016 Defence White Paper. http://www.defence.gov.au/WhitePaper/Docs/2016-Defence-White-Paper.pdf. Accessed March 5, 2018.

Department of Statistics. (2017). Singapore Government. Population trends 2017. http://www.singstat.gov.sg/docs/default-source/default-document-library/publications/publications_and_papers/population_and_population_structure/population2017.pdf. Accessed March 5, 2017.

DIRDC. (2017). Department of Infrastructure, Regional Development and Cities (Australian Government). High-speed rail study and reports. https://infrastructure.gov.au/rail/publications/high-speed-rail-study-reports/. Accessed March 5, 2018.

Douglass, M. (2016). *The rise of progressive cities in Asia: Towards human flourishing in Asia's urban transition*. Asia Research Institute, Working Paper Series No. 248, March. National University of Singapore.

Dutu, R. (2015). *Making the most of natural resources in Indonesia*. OECD Economics Department Working Papers, No. 1236. Paris: OECD Publishing.

Fatimah, Y., Abdullah, F., Hussain, M. Y., & Selvadurai, S. (2012). Connecting to the global circuit: Matching the learning sities of South-East Asia as the preferential place for global corporate innovation culture. *Procedia—Social and Behavioral Sciences, 36,* 221–234.

Gammeltoft, P., & Tarmidi, L. T. (2013). Chinese direct foreign investment in Indonesia: Trends, drivers and impacts. *International Journal of Technological Learning, Innovation and Development, 6*(12), 136–160.

Gerritsen, R. (2016). A test of the role of universities in regional development: The case of international education students in the Northern Territory. *Australasian Journal of Regional Studies, 22*(1), 125–157.

Goto, K. (2011). Implications for Laos' development of its increasing regional integration and Chinese influence. *Asian-Pacific Economic Literature, 25*(2), 68–88.

Government of Timor-Leste. (2016). Boosting growth through the growth triangle. http://timor-leste.gov.tl/?p=14966&lang=en. Accessed March 4, 2018.

Grydehøj, A. (2015). Making ground, losing space: Land reclamation and urban public space in island cities. *Urban Island Studies, 1,* 96–117.

Gunawardana, P. J. (2008). Trends and patterns of foreign direct investment in Lao PDR. *International Journal of Business and Management, 3*(1), 51–57.

Harding, R. (2017, May 4). Trump withdrawal from TPP creates high stakes turmoil. *Financial Times*. https://www.ft.com/content/37f1dcb8-0288-11e7-aa5b-6bb07f5c8e12. Accessed March 5, 2018.

Hoong, C. M. (2016, November 10). Australia: Singapore's future hinterland? *Straits Times*.

IMF. (2016). (International Monetary Fund). *World economic outlook database*. Report for selected countries and data.

International Center for Environmental Management. (2010). *Strategic environmental assessment of hydroelectric power of the Mekong Mainstream*. Summary of the Final Report. Mekong River Commission. http://icem.com.au/portfolio-items/strategic-environmental-assessment-of-hydropower-on-the-mekong-mainstream/. Accessed March 4, 2018.

INTERPLAST. (n.d.). INTERPLAST team receives award from Laos Embassy. https://www.interplast.org.au/interplast-team-receives-award-laos-embassy/. Accessed March 5, 2018.

Ip, W. T. (2012). Casino capitalism and social polarization in Macao. *Asian Education and Development Studies, 1*(3), 276–293.

Ip, A. K. C., & Yip, T. (2015). *Hong Kong Lantau East Smart City: Some innovative development concepts*. Advocacy Paper to the Hong Kong Development Bureau.

ITU. (2017). International Telecommunications Union. ICT Development Index 2017. http://www.itu.int/net4/ITU-D/idi/2017/. Accessed March 5, 2018.

Jackson, J. B. (1986). *Discovering the vernacular landscape*. New Haven: Yale University Press.

Jackson, J. B. (1996). *A sense of place, a sense of time*. New Haven: Yale University Press.

Jakarta Post. (2015, October 17). *High-speed train project to have effect on nearby cities*. http://www.thejakartapost.com/news/2015/10/17/high-speed-train-project-have-effect-nearby-cities.html. Accessed March 5, 2018.

Kearns, P. (2015). Learning cities on the move. *Australian Journal of Adult Learning, 55*(1), 153–168.

Knuckey, G. (2014). The last of the flying geese economies. Blue Notes, ANZ Bank. https://bluenotes.anz.com/posts/2014/10/the-last-of-the-flying-geese-economies. Accessed March 4, 2018.

Kuchiki, A., & Tsuji. M. (Eds.) (2008). *The formation of industrial cluster s in Asia and regional integration, Midterm Report*. IDE-JETRO [Institute of Developing Economies-Japan Exter-

nal Trade Organization] Series. http://www.ide.go.jp/English/Publish/Download/Report/2008/2008_01_11.html. Accessed March 4, 2018.
Lai, H., Chiu, Y., & Leu, H. (2005). Innovation capacity comparison of China's information technology industrial clusters: The case of Shanghai, Kunshan, Shenzhen and Dongguan. *Technology Analysis & Strategic Management, 17*(3), 293–316.
Land Development Corporation. (2016). Marine Industry Park. http://investnt.com.au/docs/investment-opportunities/eng/marine-industry-park.pdf. Accessed March 4, 2018.
Laos Government Office. (2012). Development strategy for special and specific Economic Zone (SEZ) in the Lao DPR, 2011–2020.
Laungaramsri, P. (2012). Frontier capitalism and the expansion of rubber plantations in southern Laos. *Journal of Southeast Asian Studies, 43*(3), 463–477.
Lee, A. (2017, June 21). China's Bay area is the Next Big thing, but where is it? *South China Morning Post*. http://www.scmp.com/business/global-economy/article/2099244/chinas-bay-area-next-big-thing-where-it. Accessed March 5, 2018.
Leuthje, B. (2017). *How will China's industrial modernization plan affect workers?* East-West Centre. https://www.eastwestcenter.org/news-center/east-west-wire/how-will-china%E2%80%99s-industrial-modernization-plan-affect-workers. Accessed March 4, 2017.
Lewis, R. D., & Hammerich, K. (Eds.). (2013). *Fish can't see water: How culture can make or break your corporate strategy*. London: Wiley.
Lin, G. C. S. (2013). Peri-urbanism in globalizing China: A study of new urbanism in Dongguan. *Eurasian Geography and Economics, 47*(1), 28–53.
Lynch, K. (1960). *The Image of the City*. Cambridge: MIT Press.
Macau SAR Government. (2016). Macau, Shenzhen to explore further partnership in financial services. Macau SAR Government Portal. https://www.gov.mo/en/news/60742/. Accessed March, 4 2018.
Mercy Ships. (n.d.). About us. https://mercyships.org.au/about/#about. Accessed March 5, 2018.
Ministry of Foreign Affairs. (2006). Government of Indonesia. Indonesia and Singapore signed the Framework Agreement on Economic Cooperation in the islands of Batam, Bintan and Karium. https://www.kemlu.go.id/en/berita/siaran-pers/Pages/Indonesia-and-Singapore-Signed-Framework-Agreement-on-Economic-Cooperation-in-the-Islands-of-Batam-B.aspx. Accessed March, 4 2018.
MMG Limited. (2014). Sepon breaks new copper record. http://www.minmetalsresources.com/en/Investors-and-Media/News/2014/01/30/Media-Release.aspx?pn=6&backitem=D8ABE6789F2440EC946E3C207A67FA66. Consulted March 4, 2018.
MPI. (2014). Ministry of Planning and Development (Government of Laos), Investment Portfolio Department. http://www.investlaos.gov.la/. Accessed March 5, 2018.
NBC News. (2016). Obama, in Laos, pledges $90 million to clear unexploded ordinance. https://www.nbcnews.com/news/world/obama-laos-announces-u-s-will-give-90-million-clear-n643156. Accessed March, 4 2018.
NDRC. (2015). National Development Reform Commission (People's Republic of China). Vision and actions on jointly building Silk Road economic belt and 21st-century Maritime Silk Road. http://en.ndrc.gov.cn/newsrelease/201503/t20150330_669367.html. Accessed March 5, 2018.
Nikkei Asian Review. (2017). Caution required on Indonesia's plan for Batam. https://asia.nikkei.com/Features/FT-Confidential-Research/Caution-required-on-Indonesia-s-plan-for-Batam. Accessed March 5, 2018.
Noonan, L. (2017, October 23). Banks plan to shift Asian trading from London to HK. *Financial Times*. https://www.ft.com/content/2a072982-b59d-11e7-aa26-bb002965bce8. Accessed May 6, 2018.
Norasingh, X. (2013). Foreign direct investment and knowledge transfer in Laos. *Asian Journal of Technology Innovation, 21*(supp. 1), 139–156.
NUL. (2013). National University of Laos. History. http://www.nuol.edu.la/index.php/about-nuol-3/2013-02-12-08-18-58/2013-02-12-07-57-13.html. Accessed March 5, 2018.

NUS. (n.d.). National University of Singapore. Global partners. http://www.nus.edu.sg/global/partners.html. Accessed March 5, 2018.
Ogan, T.L., & Xiangming, C. (2016). The rise of Shenzhen and BYD—How a Chinese corporate pioneer is leading greener and more sustainable urban transportation and development. *European Financial Review*. http://www.europeanfinancialreview.com/?p=5603. Accessed March 12, 2018.
Pang, N. S.-K., & Wong, T. (2016). Professional learning communities: Research and practices across six educational systems in the Asia-Pacific Region. *Asia Pacific Journal of Education, 36*(2), 193–201.
Phimphanthavong, H. (2012). Economic reform and regional development of Laos. *Modern Economy, 3,* 179–186.
Pholphirul, P., & Rukumnuaykit, P. (2010). Economic contribution of migrant workers to Thailand. *International Migration, 48*(5), 174–202.
Pinkerton, L., McHardy, H., Wheeler, C., & Austin, M. (2015). Developing Northern Australia: Investing in Australia's gateway to Asia. King & Wood Mallesons. http://www.kwm.com/en/au/knowledge/insights/developing-northern-australia-investing-gateway-to-asia-20150622. Accessed March 5, 2018.
Prime Minister of Australia. (2017). Joint statement between the Government of Australia and the Government of the Republic of Indonesia. Media Release. https://www.pm.gov.au/media/joint-statement-between-government-australia-and-government-republic-indonesia. Accessed March 5, 2018.
Rasiah, R., Nolintha, V., & Songvilay, L. (2011). Garment manufacturing in Laos: Clustering and technological capacities. *Asia Pacific Business Review, 17*(2), 193–207.
Ross, S., & Wall, G. (1999). Evaluating tourism: The case of North Sulawesi, Indonesia. *Tourism Management, 20*(6), 673–682.
RUN. (2018). Rural Universities Network. http://www.run.edu.au/. Accessed March 5, 2018.
SEMCO. (n.d.). Southeast Asian Ministers of Education Organisation. http://www.seameo.org/SEAMEOWeb2/. Accessed March 4, 2018.
Shell. (n.d.). Inside Indonesia's accelerated gas projects. https://www.shell.com/business-customers/global-solutions/impact-magazine/inside-indonesias-accelerated-gas-projects.html. Accessed March 5, 2018.
Shen, J., & Lou, X. (2013). From fortress Hong Kong to Hong-Kong-Shenzhen Metropolis: The emergence of government-led strategy for regional integration in Hong Kong. *Journal of Contemporary China, 22*(84), 944–965.
Stuart-Fox, M. (2006). The political culture of corruption in the Lao PDR. *Asian Studies Review, 30*(1), 59–75.
Stuart-Fox, M. (2009). Laos: The Chinese connection. *Southeast Asian Affairs, 2009,* 141–169.
Su, X., & Miller, L. H. (2015). The discovery of artemisinin and Nobel Prize in Physiology or Medicine. *Science China Life Sciences, 58*(11), 1175–1179.
Sugiyarto, G., & Mendoza, D.R. (2014). *A "freer" flow of skilled labor within ASEAN: Aspirations, opportunities and challenges in 2015 and beyond*. Washington D.C. Migration Policy Institute. https://www.migrationpolicy.org/research/freer-flow-skilled-labour-within-asean-aspirations-opportunities-and-challenges-2015. Accessed March, 4 2018.
Tourism NT. (n.d.). Northern Territory Government. Tourism NT Corporate Website. http://www.tourismnt.com.au/en/marketing/international-marketing/current-campaigns/aquatic-and-coastal. Accessed March 5, 2018.
Tuan, Y.-F. (1990). *Topophilia: A study in environmental perception attitudes and values*. New York: Columbia University Press.
University of Macau. (2014). New campus information for the media. http://www.umac.mo/nc_information/index.html. Accessed March, 4 2018.
Urry, J. (2011). *The tourist gaze 3.0*. London: Sage Publications.
van Mead, N. (2017, March 21). The great sprawl of China: Time-lapse images reveal 30-year growth of cities. *The Guardian*. https://www.theguardian.com/cities/2017/mar/21/timelapse-satellite-images-china-fastest-growing-cities. Accessed March, 4 2018.

Vongpraseuth, T., & Choi, C. G. (2015). Globalization, foreign direct investment, and urban growth management: Policies and conflicts in Vientiane, Laos. *Land Use Policy, 42,* 790–799.
Wade, G. (2015). Port of Darwin: This is about more than China's economic interest. ABC [Australian Broadcasting Corporation] News. http://www.abc.net.au/news/2015-11-24/wade-the-darwin-port-is-another-link-in-chinas-expansion/6967640. Accessed March 5, 2018.
Wahyuni, S., Ekaputra, I. A., & Tjong, W. (2012). The impact of competitiveness on firm growth in Special Economic Zone: A study of electronics cluster in Batam, Indonesia. *Journal of International Business and Economy, 13*(2), 107–124.
Wang, Y., & Zhao, L. (2017). Outward foreign direct investment from China: Recent trend and development. *The Chinese Economy, 50*(5), 256–365.
WHO. (2015). World Health Organization. Laos People's Democratic Republic: WHO statistical profile. http://www.who.int/gho/countries/lao.pdf?ua=1. Accessed March 5, 2018.
Wilson, A. (2011). Foreign bodies and national scales: Medical tourism in Thailand. *Body & Society, 17*(2–3), 121–237.
Wisansing, J. (2008). The three waves of internationalisation sweeping Thailand's tourism and hospitality education: Current progress and future prospects. *Journal of Hospitality and Tourism Education, 20*(1), 13–19.
Wong, J., & Chan, S. (2003). China's outward direct investment: Expanding worldwide. *China: An International Journal, 1*(2), 273–301.
Wong, J., Song, T. K., Mu, Y., Tong, D., Seng, L. T., & Kia, L.C. (2008). *A study on Singapore's experience in regional cooperation*. Report submitted to the Central Policy Unit of the Government of Hong Kong Special Administrative Region by the East Asian Institute of the National University of Singapore. http://www.cpu.gov.hk/doc/tc/research_reports/Singapore%27s%20Experience%20in%20Regional%20Cooperation_Final%20Report.pdf. Accessed March, 4 2018.
World Bank. (2017). The World Bank and Laos PDR. Overview. http://www.worldbank.org/en/country/lao/overview. Accessed March, 4 2018.
Wu, F. (2007). Re-orientation of the city plan: Strategic planning and design competition in China. *Geoforum, 38*(2), 379–392.
Wu, J. (2011). Between the centre and the periphery: The development of port trade in Darwin. *Australia. Australian Geographer, 42*(3), 273–288.
Xayamoungkhoun, O. (2008). *Developing e-Learning in Laos*. M.A. Thesis, School of IT-Business, Information and Communications University, Daejeon, Korea.
Yeh, A. G., Sit, V.-F., Chen, G., & Zhou, Y. (Eds.). (2006). *Developing a competitive Pearl River Delta in South China Under one country-two systems*. Hong Kong: Hong University Press.
Yi, A. K. J. (2017). Dynamics of trade in value-added in "Factory Asia". *Journal of Contemporary Asia, 47*(5), 704–727.
Zhang, D., & Unschuld, P. U. (2008). China's barefoot doctor: Past, present, and future. *The Lancet, 372*(9653), 1865–1867.