Beyond Metropolis

The Planning and Governance of Asia’s Mega-Urban Regions

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Woodrow Wilson Center Press
Washington, D.C.

The Johns Hopkins University Press
Baltimore
From Mega-Cities to Mega-Urban Regions

With the advent of the twenty-first century, the image of Asia has shifted from terraced rice paddies and waving palms to smoke-belching factories and towering skyscrapers. True, Asia has a relatively low level of urbanization (37.5 percent in 2000) compared with Europe (73.4), Oceania (74.1), Latin America and the Caribbean (75.4), or North America (77.4). However, it currently holds twelve of the twenty-two largest cities in the world as well as 60 percent of the global population. Asian mega-cities include the world’s largest, Tokyo, with a population of 26.5 million, projected to expand to 27.2 million by 2015. As seen in table 1.1, other large urban agglomerations in Asia are Mumbai (formerly Bombay), with 16.5 million; Kolkata (formerly Calcutta), 13.3 million; Dhaka, 13.2 million; Delhi, 13.0 million; Shanghai, 12.8 million; Jakarta, 11.4 million; Osaka, 11.0 million; Beijing, 10.8 million; Karachi, 10.4 million; Metro Manila, 10.1 million; and Seoul, 10.0 million. By 2015, two other Asian cities are expected to exceed 10 million population: Istanbul, with 11.4 million, and Tianjin, 10.3 million (United Nations 2001).*

Table 1.1. Populations of Cities with 10 Million or More Inhabitants, 1950–2015 (millions)

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<td>2. Tokyo</td>
<td>19.8</td>
<td>2. São Paulo</td>
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<td>2. Dhaka</td>
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<td>2. Dhaka</td>
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<td>5. Mexico City</td>
<td>10.7</td>
<td>5. Mumbai (Bombay)</td>
<td>16.5</td>
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The United Nations defines agglomerations of 10 million or more as mega-cities. Although population size is important, however, it need not be the main factor that determines an agglomeration’s status as a mega-city. In this book, which is primarily concerned with the planning and governance of large urban areas, I have taken into consideration other socioeconomic factors in deciding whether to include a city in the study or not. Such factors include (1) demographic variables, such as past, present, and future population growth rates, the changing structure of the population by age, gender, and socioeconomic status, population densities, and the geographic spread of population; (2) financial resources and commercial-industrial structure; (3) the primacy and dominance of a city relative to other cities in the country or region; (4) the city’s political role as a national capital or a regional development hub; (5) the administrative and political unity or fragmentation of the city-region; (6) the administrative and political mechanisms that have been used historically for planning and governance; and (7) the relative adequacy or inadequacy of urban services, educational and cultural amenities, and infrastructure to meet the needs of the people.

In the light of these other factors, large cities that by the UN definition did not qualify as mega-cities in 2001—like Bangkok, with 7.3 million people; Guangzhou, 6.7 million; and Hong Kong, 6.8 million—have been included in this study. In cases where interesting events or patterns of development in other Asian cities are worth mentioning (as in Bangalore; Chennai, formerly Madras; Hanoi; and Ho Chi Minh City), I have also noted these in the study.

In 1950, New York, with a population of 12.3 million, was the only megacity in the world. Fifteen years later, Tokyo, with 19.8 million inhabitants, supplanted New York as the world’s largest city; and another Asian city, Shanghai, with 11.4 million, joined the mega-city club. By 2001, the number of world mega-cities had expanded to eighteen, and twelve of these were in Asia. The Asian share of mega-cities has gone up from 40 percent in 1975 to 64 percent in 2001. Of the world’s twenty-two mega-cities in 2015, Asia is expected to have fourteen, Latin America four (São Paulo, Mexico City, Buenos Aires, and Rio de Janeiro), Africa two (Lagos and Cairo), and North America two (New York and Los Angeles) (United Nations 2001). The anomaly of using the size of a city’s population as the only criterion for defining mega-cities is seen in the fact that by 2015, not a single urban agglomeration in Europe will qualify as a mega-city, despite the obvious status of London, Paris, Berlin, and Rome as great cities of the world.

In the past half-century, many Asian mega-cities have grown rapidly, engulfing the towns and villages on their peripheries, in what some Chinese
planners have called the “spreading pancake” pattern. Although the population size and territorial spread of these Asian urban agglomerations are impressive enough, there is some evidence that their fields of influence in economic and social terms are actually much larger. Thus, it may not be accurate to call these large Asian urban agglomerations *mega-cities* anymore. Even the term *metropolis*—denoting a central city with surrounding highly urbanized and rapidly urbanizing communities—may be inadequate. The fact is that some of these Asian urban agglomerations have become so large that they now encompass a number of urban nodes around a central city or a network of urban places that make up an “extended urban region.”

Some authors have used the term *extended metropolitan region* to refer to these spread-out settlements (Ginsburg, Koppel, and McGee 1991; McGee and Greenberg 1992; McGee and Robinson 1995). The term *megalopolis*, originally used by Gottmann (1961) to refer to the urbanized North American region stretching from Washington to New York and Boston has also been applied to the “bullet train” corridor made up of Tokyo, Osaka, Kyoto, and Nagoya. Not one of the cities in China’s Pearl River Delta (Hong Kong, Guangzhou, Macao, Shenzhen) qualifies as a mega-city by mere size; but considered together, these cities may be seen as a form of multimodal development that makes up a *megalopolitan region* (Yeh et al. 2002; Enright et al. 2003).

McGee has coined the term *desakota* region to refer to Asia’s sprawling urban settlements, combining the word *desa* (village) and *kota* (city) to highlight the mixed rural/urban character of these agglomerations. Following McGee’s lead, a number of researchers have described the process of *desakota* development in city regions like Bangkok, Jakarta, Seoul, Shanghai, and the Pearl River Delta region of China (McGee and Robinson 1995; Dharmapatni and Firman 1995; Marton 1996; Lin 1997). In McGee’s view, Asian urbanization is “region-based” rather than “city-based.” Urban development has radiated outward from a central city and enveloped densely populated rural areas that also contain a great variety of urban activities. Unlike the usual process, whereby big cities draw migrants from rural areas to a large city, what has been happening in Asia, according to McGee, has been the outward expansion of the city, which has taken over relatively large and dense population centers in situ (McGee 1995, 10).

Friedmann has proposed that the term *city* might refer to a settlement with clearly defined boundaries or to a *city region* that consists of a core city along with its surrounding urban field, which together make up an “integrated/functional economic space.” As Friedmann explained:
Urban fields typically extend outward from the core to a distance of more than 100 km; they include the city’s airport, new industrial estates, water-sheds, recreation areas, water and sewerage treatment facilities, intensive vegetable farms, outlying new urban districts, already existing smaller cities, power plants, petroleum refineries, and so forth, all of which are essential to the city’s smooth functioning. City regions on this scale can now have millions of inhabitants, some of them rivaling medium-sized countries. This space of functional/economic relations may fall entirely within a single political/administrative space. . . . More likely, however, it will cut across and overlap with a number of—in some cases a very large number—of political-administrative spaces of cities, counties, districts, towns, provinces, etc. (Friedmann 1992, 4; emphasis in the original)

The concept of urban field proposed by Friedmann is an excellent way of understanding the emergence of mega-urban regions in Asia. McGee has noted that “a distinguishing feature of recent urbanization in the . . . countries [belonging to the Association of Southeast Asian Nations] is the extension of their mega-cities beyond the city and metropolitan boundaries” (McGee 1995, ix). This urban growth has often spread outward along major transportation routes, forming what has sometimes been called the “palm and extended fingers pattern”—with string developments extending along major transportation routes from an expanding urban core until they link up with other towns and cities on the city-region’s periphery:

Extended metropolitan development tends to produce an amorphous and amoeba-like spatial form, with no set boundaries or geographic extent and along regional peripheries; their radii sometimes stretching 75 to 100 km from the urban core. The entire territory—comprising the central city, the developments within the transportation corridors, the satellite towns and other projects in the peri-urban fringe, and the outer zones—is emerging as a single, economically integrated “mega-urban region” or “extended metropolitan region.” Within this territory are a large number of individual jurisdictions, both urban and rural, each with its own administrative machinery, laws and regulations. No single authority is responsible for overall planning and management. (McGee 1995, 8)

In this book, I have adopted the concept of “urban field” advanced by Friedmann and the idea of “mega-urban region” advanced by McGee and others in their studies of Asian urbanization. In addition, however, I propose
that in a number of Asian countries, mega-cities have greatly expanded to
the extent that they now form "systems of cities" linked together function-
ally in networks of settlements encompassing huge tracts of highly urban-
ized as well as rural areas.

In focusing on the large urban agglomerations in Asia, I have decided to
use mega-urban region as a generic term to refer to these very large urban
settlements. Strictly speaking, however, mega-urban region may refer to (1)
mega-city-centered extended metropolitan regions like Bangkok Metropo-
lis, Metro Manila, Jakarta Raya, and the Delhi and Dhaka national capital
regions, where development emanates from a dominant urban core and en-
velopes adjacent settlements; (2) extended metropolitan regions, such as the
Shanghai-Nanjing-Hangzhou-Suzhou region and the Beijing-Tianjin-Tang-
shan national capital region, where a number of urban nodes form a regional
network; (3) polynucleated metropolitan regions, where no one city-region
dominates but a number of highly urbanized urban settlements form a sys-
tem of cities, such as in the Pearl River Delta region in southern China made
up of Guangzhou, Shenzhen, Hong Kong, Macao, and Zuhai; and (4) true
megalopolitan regions, such as the Tokyo-Nagoya-Osaka bullet train corri-
dor, where several large mega-cities with their own extended metropolitan
regions encompass a very large highly urbanized area.

In general, Asian mega-urban regions tend to be fragmented administra-
tively and politically. Some of them cut across traditional provincial and state
boundaries and are marked by an absence of unified or coordinated gover-
nance structures. Although some urban and regional planners have voiced
the need for comprehensive strategic plans that may guide the development
of these mega-urban regions, serious problems have confronted and frustrat-
ed such attempts. Usually, problems associated with jurisdictional frag-
mentation, the decentralization of authority and power to autonomous local
government units, and the uneven distribution of economic and financial re-
sources among various local units, pose serious issues related to areawide
planning and urban governance. The main challenge in Asian megaurban
regions, therefore, is how developments in the mega-city, the extended met-
ropolitan region, and the megalopolitan region can be effectively planned
and governed in such a way that these agglomerations can continue to be eco-
nomically productive, provide gainful employment, meet ever-rising levels
of demand for key urban infrastructure and basic urban services, protect and
conserven the physical and cultural environment, foster civic involvement and
participation of citizens in public affairs, achieve equity and social justice,
and ensure the sustained livability of these human settlements.
Because definitions of what constitutes a mega-city, an extended metropolitan region, or a megalopolitan region tend to be fuzzy, it is important to clearly indicate the geographic area and jurisdictional scope of such mega-urban regions. It may be useful, therefore, to try to define the boundaries of these settlements. To illustrate, one may look into the spatial configuration of the national capital region of Japan. The central core of this region is the completely urbanized mega-city of Tokyo. Surrounding this densely inhabited core is the Tokyo metropolitan region, which includes the prefectures of Tokyo, Saitama, Chiba, and Kanagawa and the cities of Yokohama, Kawasaki, and Chiba. Going farther afield, there is the Tokyo megalopolitan region, which includes the cities and prefectures of Nagoya, Kyoto, Osaka, and Kobe. The Tokyo megalopolitan region, therefore, is composed of the interlocking urban fields of at least five city-centered regions that make up the economic, social, and political heartland of Japan (Takahashi and Sugiuira 1996, 103).

The emergence of mega-urban regions has also been well marked in China. China’s national capital, Beijing, is a mega-city composed of four city districts that make up the urban core (East District, West District, Xuanwu, and Chongwen). The master plan for Beijing, however, encompasses a metropolitan region that includes four inner suburban districts (Haidian, Chaoyang, Fengtian, and Shijingsha), as well as ten counties that have been added to the city’s jurisdiction (Tongxian, Changping, Shunyi, Miyun, Yanqing, Pinggu, Daxing, Fangshan, Mentougou, and Huairou). This metropolitan region covers 16,807.8 square kilometers and had a population of 11 million in 2001. In analyzing developments in the Beijing region, however, some planners have proposed that the planned development of China’s capital region should include other urban centers in what has been called the Jing-Jin-Tang corridor that includes Beijing, Tianjin, and Tangshan (Ye 1986). This megalopolitan region, which also includes the cities of Langfeng and Qinhuaingdao, extends from the northern tip of the Great China plains to the Gulf of Bohai, an area that contains a population of about 36 million (Mao 1996).

The largest mega-city of China, Shanghai, is made up of ten urban districts, four suburban districts, and six suburban counties. The master plan for Shanghai, however, adds seven satellite towns that expand the Shanghai metropolitan region to a territory of 6,340 square kilometers with a population of 12.8 million. As in Beijing, however, some planners have suggested that proper planning for Shanghai should include a megalopolitan region that includes Nanjing and six cities in Jiangsu province as well as
another seven cities in Zhejiang province. This would expand the Shanghai megalopolitan region to an area of 100,000 square kilometers with a population of 72.7 million (Shi, Lin, and Liang 1996, 536).

Other urban areas in Asia that may be considered mega-urban regions include (1) the Jakarta region, which comprises the so-called Jabotabek (Jakarta-Bogor-Tangerang-Bekasi) region in West Java; (2) the Metro Manila region, which encompasses the Calabarzon (Cavite-Laguna-Batangas-Rizal-Quezon) region on Luzon Island; (3) the Bangkok region; (4) the Guangzhou–Hong Kong–Macao development triangle, which also includes the special economic zones of Shenzhen and Zhuhai as well as the cities of Zhongshan, Baoan, and Pangyu in the Pearl River Delta of southern China; (5) the National Capital Region of India, which is made up of the city of Delhi and districts in the states of Haryana, Uttar Pradesh, and Rajasthan; (6) the Mumbai-Pune development corridor; (7) the Kolkata region; (8) the Dhaka region; and (9) the Karachi region.

Why This Book?

With the prospect of mega-urban regions dominating the urban landscape in Asia and other parts of the world, it is interesting that although there have been quite a number of analytical studies focused on the emergence of very large urban agglomerations, there has been a dearth of policy-oriented studies dealing with comprehensive planning and governance designed to cope with the many problems faced by these settlements. This book is an attempt to respond to planning and governance needs of mega-urban regions. Essentially, it asks if these extremely large urban agglomerations can remain viable as human settlements, if they can provide the services and amenities required by the tens of millions of people who inhabit them, and if they can ensure their citizens a decent quality of life. Are these mega-urban regions sustainable from an ecological, economic, social, and cultural viewpoint? Will social equity and justice be possible in these large urban city-regions? Can they be planned rationally and comprehensively so that they will be able to strategically respond to both expected and unexpected developments and trends? Are they governable in such a way that public services can be delivered effectively and efficiently? Are there ways by which good leaders can be selected in an open and democratic manner; the costs of government kept within the capacity to pay of the citizens; and all interested citizens, interest groups, and stakeholders be able to particip-
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pate in decision-making processes that affect their lives? Specifically, the
book raises the following issues:

- How did mega-urban regions emerge? What economic, social, geo-
graphic, environmental, and historical factors played a role in their
growth and development? The various mega-urban regions included
in this study represent a wide and complex variety of demographic pat-
terns, levels of economic development, ethnocultural mixes, institu-
tional mechanisms, and systems of planning and governance. What
are the unique features as well as the common characteristics that may
help to explain their successful or unsuccessful efforts at planning and
governance?

- What positive developmental outcomes have resulted from the emer-
gence of mega-urban regions? How have large mega-urban regions
influenced the economic, social and political developments of nation-
states of which they form a part?

- What problems have been encountered in mega-urban regions? What
efforts have been used to solve these problems? How did government
policies, programs, and activities contribute directly or indirectly to the
rapid growth of mega-urban regions? What lessons have been learned
from public, private, and community efforts, and how can these be
adapted to varying situations in other countries?

- How can comprehensive and strategic planning approaches be used to
make mega-urban regions more livable and sustainable? What govern-
ance policies, structures, and mechanisms can be used to help make
mega-urban regions more livable and sustainable?

For a detailed overview of the present volume’s approach, methodology,
and chapter contents, see the section at the end of this chapter titled “About
This Book.”

**Containing the “Exploding Cities”**

As early as the mid-1950s, it was proposed that Asian cities were not like
Western cities in their historical patterns of development, demographic
growth, economic production, labor absorption, and links to industrializa-
tion. Analyzing the rapid growth of big cities in Asia, Hauser (1957), con-
cluded that these were “overurbanized,” in that the explosive expansion of
their populations was not accompanied by the economic and industrial changes that characterized urbanization in Europe and North America. Breese coined the term “subsistence urbanization” to describe the extreme poverty in big Asian cities, “in which the ordinary citizen has only the bare necessities and sometimes not even those for survival in the urban environment” (Breese 1966, 5).

In The Southeast Asian City, McGee (1967) coined the term “pseudo urbanization” to refer to a situation where the growth of cities is “unhinged” from processes of economic development and industrialization. Taking off from the observation of Davis and Golden (1955) that it was the “population boom” (arising from natural population growth and internal migration) rather than “true urbanization” (in the sense of “urbanism” as proposed by Wirth 1938) that is responsible for the rapid growth of Asian cities, McGee perceived a pessimistic scenario for Southeast Asian urbanization, characterized by inevitable conflicts between urban elites and the rural masses, growing urban-based centralism and authoritarianism, and a catastrophic shift “from despair to desperation” (McGee 1967, 22).

In 1972, Ginsburg cited four features that made big Asian cities different from their Western counterparts (Ginsburg 1972, 273–74). First, he noted the “indigenous tradition” of urbanism exemplified by ancient cities like Beijing, Delhi, and Tokyo, which historically flourished much earlier than Western cities. During the early phase of development in these cities, according to Ginsburg, they tended to be compact and had densely populated core areas, unlike Western cities that were more spread out because of the influence of economic and technological factors such as industrialization and the wide use of the private automobile.

Second, Ginsburg observed that the vast majority of Asian big cities were the result of “foreign enterprise and/or domination,” that took the form of the “colonial city,” typified by Jakarta, Karachi, Kolkata, Manila, and Mumbai. Due to their colonial nature, Ginsburg pointed out that these very large cities were not originally designed to serve their contiguous hinterlands but acted more as linkage points between the European countries and their exploited colonies.

Third, Ginsburg noted that big cities were a feature of “dual economies” in most Asian countries, where the modernized sector was reflected in the very big cities while the vast majority of the people lived in tradition-bound rural areas. Fourth, he concluded that big Asian cities were different from Western cities “morphologically and organizationally” because
the spatial distribution of . . . population [in Asian cities] is less by socio-economic classes than by ethnic, caste, racial, and occupational distinctions. Land uses most frequently are mixed andplace of work and place of residence tend to be associated. Suburbanization is relatively slight and . . . such suburbanization as has taken place is associated with lower-income rather than higher-income groups. Even where suburbs in a strict sense are non-existent, given frequent overlapping, settlement on the outskirts of the expanding cities may be associated with squatter settlement. . . . The central business districts are undeveloped and diffuse. Centralization as a principle is clearly not nearly so important [in Asia] as it is in the West. (Ginsburg 1972, 274)

In the decades after World War II, policymakers in many Asian countries— influenced by the negative view of “the exploding cities” that was then pervasive in the urban literature—adopted policy instruments designed to control the growth of big urban agglomerations. In China, strict controls on internal migration through the hukou (household registration) program were instituted in the mid-1950s to limit urban growth. Rural industrialization was attempted in the summer of 1958 in the Great Leap Forward campaign, which, combined with the Commune Movement, tried to improve the lives of rural dwellers by accelerating both industrial and agricultural productivity. Unfortunately, both these campaigns had disastrous results that were not helped by the ravages of natural calamities between 1959 and 1961 and the withdrawal of Soviet assistance from China due to ideological differences.

Despite the failure of these two campaigns, China’s leaders launched the Great Cultural Revolution between 1966 and 1976. During this period, China instituted programs to decongest big cities like Beijing, Guangzhou, Shanghai, and Tianjin by forcibly moving intellectuals, students, and professionals to the countryside in the so-called xia fang movement. The Great Cultural Revolution failed, and many of the “rusticated” persons drifted back to the cities, many as “black” or undocumented migrants. Serious economic and social dislocations caused by the virtual collapse of the government also resulted in an increase in China’s population that, combined with uncontrolled migration, greatly expanded the population of big cities.

The launching of economic reforms in 1979 was accompanied by the relaxation of strict controls on internal migration. Officially, however, China to this day still adheres to the policy to “limit the growth of very large cities,
rationally plan the development of medium-sized cities, and encourage the growth of small towns." Despite the relaxation of the hukou system, some local officials still use it to regulate the inflow of migrants by making it a prime consideration in the allocation of jobs, housing, and other benefits. China's continuing wary attitude toward the rapid growth of very large cities may be partly explained by the realization that something like 450 million people (out of 900 million rural dwellers) are considered redundant in rural areas and that the uncontrolled migration of these people to big cities might create serious problems of unemployment, housing, environmental pollution, crime, and other urban ills.

In other Asian countries, there were similar attempts to limit the growth of big cities with the use of administrative measures. During the early 1960s, Jakarta tried a personal identification system limiting access to urban services to bona fide city residents. Manila also instituted similar measures, where, for example, admission to city schools was confined to official city residents. Some local officials even went to the extent of issuing one-way bus or train tickets to rural-urban migrants to allow them to return to their places of origin. In Indonesia, Malaysia, and the Philippines, government programs for rural development were adopted in the belief that if life in the villages and towns could be improved, people would not flock to big cities. Such programs as the "transmigration" settlements in Indonesia, the federal land development schemes in Malaysia, and the Mindanao resettlement programs in the Philippines were meant not only to develop frontier areas but also to deflect migration away from big cities.

Urban theorists and policy analysts in a number of countries proposed limiting the growth of very large cities by focusing attention on the development of small towns and small cities. In India, Johnson (1970), basing his arguments on the merits of central place theory, proposed that "ten thousand small towns" would effectively service and energize the countryside. Banerjee and Schenk (1984), comparing urbanization trends in China and India, lauded the Chinese government's strategy to limit the growth of very large cities and encourage the development of small towns. After launching economic reforms in 1979, the Chinese authorities resurrected the theories of Fei Xiaotong, which highlighted the developmental role of small towns during the 1930s (Fei 1984). In 1984, Rondinelli wrote persuasively about the economic and social roles of small cities and towns in national development (Rondinelli 1984). Arguing that small town development would achieve "equity with growth," Kammeier and Swan (1984) vigorously supported policies to encourage the growth of "lower level settlements."
Aside from attempting to limit the growth of large cities by encouraging development in rural areas or redirecting development to smaller urban nodes, some authorities in a number of Asian countries decided to tackle big city growth head on. They used planning instruments and zoning codes and regulations to control the outward expansion of big cities. In the mid-1950s, when Seoul was growing at an average annual rate of 7.6 percent, the authorities instituted “greenbelts,” wide swaths of green space, around the city; and they prohibited or penalized industrial and housing investments settling outside these belts. These approaches, however, were not very successful because the lure of cheaper land and improved transport facilities simply encouraged investors to “jump the greenbelt” and establish their plants on the urban periphery. South Korean programs to channel public and private investments to growth centers in urban nodes far from Seoul (like Kangjju, Kyungnam, Pusan, and Taegu) were more successful because these new centers served as “countermagnets” to developments in the capital region.

In India, the government set up “industrial estates” and “new towns” to attract people and discourage them from moving to large cities. Unfortunately, some industrial and new towns were located too close to cities like Kolkata and Mumbai and thus were later engulfed by urban sprawl. In Metro Manila, the government passed a law in 1962 imposing higher taxes and urban service fees on industrial and manufacturing plants built within a 50–kilometer radius from the city center. Instead of limiting urban growth, this law had the effect of increasing urban sprawl as investors took advantage of cheaper land and more accommodating conditions offered by suburban local authorities eager to attract tax-paying concerns to locate in their jurisdictions.

As a whole, past policy efforts in South and Southeast Asia to control the growth of large cities have had very mixed results. In South Asia, annual population growth rates in very large cities declined slightly between 1975 and 2000 but remained high. The exception to this trend was Dhaka, which grew by 6.6 percent a year in the period 1950–75 and by 7.0 percent in 1975–2000. Mumbai grew by 3.1 percent annually in 1975–2000 (down from 3.6 in 1950–75), Delhi by 4.1 percent (down from 4.6), and Karachi by 3.7 percent (down from 5.4). Even as big city populations in South Asia are expected to decline in the future, the United Nations notes that very high growth rates could be expected in medium-sized Indian cities, such as Ghaziabad (which grew by 5.2 percent a year in 2000–15) and Surat (5.2 percent).

In Southeast Asia, the primacy of capital cities like Bangkok, Jakarta, and Metro Manila remains strong, and various programs to encourage rural...
growth, deflect development to small towns and small cities, set up development nodes in frontier areas, and use planning instruments and zoning regulations to limit big city growth have not met with much success. Although official urban statistics project a reduction in big city population growth rates in 2000–2015, there are indications that some of these declining trends may be due to the statistical “underbounding” of standard metropolitan statistical areas. The populations of inner cities in South and Southeast Asia may not be growing (some core cities are even losing population), but other localities on the urban periphery are growing at annual rates in excess of 8 percent. This growth is not captured in official statistics, which are based on urban boundaries that may be seriously out of date.

The Urban Transition and “Polarization Reversal”

In the early 1970s, the concern about the rapid growth of mega-cities and large urban agglomerations was relieved, somewhat, by an observation that the rates of growth of such settlements had been slowing down. In North America, it was noted that inner-city cores were losing population and even the growth of peripheral areas was slackening. In about 1976, several demographers observed that cities like Buffalo, Cleveland, and Pittsburgh exhibited negative growth rates. Milwaukee, New York, and Saint Louis also had negative growth rates in the 1970s. This decline in big city growth was called “counterurbanization,” “reconcentration,” or “polarization reversal.”

The same tendency toward declining population growth rates was observed in a number of cities in Europe. As early as the 1960s, Liverpool, London, and Manchester had started losing population. Dusseldorf, Essen, Hamburg, and Hanover experienced negative growth rates in the 1970s. So did Florence, Genoa, Milan, Naples, and Rome. London, in particular, lost 853,000 people between 1970 and 1980 (United Nations 1998b).

The decline in the growth rates of cities was also observed in developing countries. The projected population figures for Buenos Aires, Mexico City, Rio de Janeiro, and São Paulo had to be reduced in 1996 because of decreasing growth rates. China and India revised their big city population projections downward in the 1970s. In recent years, however, there has been a perceived increase in the growth rates of very large Chinese cities.

The observed decline in mega-city population growth rates is said to be a key element in the process of “urban transition.” It was proposed that large
city growth was cyclical, going through at least four phases. The first phase was urbanization, the rapid growth of the urban core. This was followed by suburbanization, rapid growth on the urban periphery. The third phase, counterurbanization, saw declines in population growth both in the core and on the urban periphery. Finally, the fourth phase involved reurbanization, an increasing growth rate in the core followed by slower growth on the urban periphery (United Nations 1998a).

Reading the literature on the perceived decline in the growth rates of mega-cities and mega-urban regions, I was reminded of studies I had conducted in Metro Manila in the early 1960s. At the time, the metropolitan area officially designated as the Philippine national capital region (NCR) was composed of four cities (Manila, Quezon City, Caloocan, and Pasay) and four towns (Malabon, Navotas, San Juan, and Makati). The population figures and other data provided by the Bureau of the Census and Statistics were limited to these local jurisdictions. Because I was interested in comprehensive and strategic planning for Metro Manila at the time, however, I decided to more accurately determine the actual “field” or geographic spread of urban services in the metropolitan area. To do this, I drew up a set of overlay maps on transparent acetate sheets that showed the spatial coverage of the following services:

1. the actual area covered by the service grid of the Manila Electric Company;
2. localities that could be reached by a local call with the Philippine Long Distance Telephone Company;
3. the service coverage of the Metropolitan Waterworks and Sewerage System, including reservoirs, open water sources, and forested watershed areas;
4. localities that could be reached by city buses or jeepneys based on a 50 centavo fare;
5. the residences of workers in a number of government agencies who commuted daily to jobs in the city;
6. localities where city market vendors got their supplies of fruits and vegetables each day;
7. the locations of squatter areas on the urban periphery;
8. the locations of newly established factories and industrial sites;
9. the locations of newly opened housing subdivisions and housing projects; and
10. the locations of open dumps used by city authorities for their solid waste.
By simply putting the overlay maps indicating the geographic coverage of public services in the Metro Manila area on top of each other and shining a naked electric bulb beneath them, I was able to easily determine the actual "field" of economic and social activities that an urban-regional planner needs to consider in formulating a comprehensive plan for the metropolitan area. This rather mechanistic method (the geographic information system had not yet been invented) revealed that instead of the four cities and four towns that supposedly delimited the NCR, the "real" national capital region required the addition of nine other localities that were actively involved in areawide services and economic activities (Valenzuela, Marikina, Taguig, Pasig, Pateros, Mandaluyong, Paranaque, Muntinlupa, and Las Pinas).

Much later, of course, the formal definition of the jurisdiction of the Metro Manila area was revised to encompass all these local government units—although, at present, all but four of the original towns have changed their status to chartered cities. Even with this official adjustment, however, some Philippine planners are already suggesting that the actual field of Metro Manila's development has spread beyond the seventeen local government units affiliated with the Metro Manila Development Authority. With the active economic linkages established between the NCR and the newly created special economic zones at Subic Bay and at the former U.S. Air Force base at Clark, these planners are arguing that a comprehensive development plan for the NCR should encompass these growth nodes and adjacent local government units (HUDCC 1995).

A similar analysis of large urban agglomerations in South and Southeast Asia will probably indicate that the official metropolitan boundaries on which official statistics are based are narrowly underbounded. A significant degree of perceived decline in annual population growth rates in Asian urban agglomerations, therefore, may be due to a statistical artifact. For more effective planning and governance efforts, it may be necessary to adjust the boundaries of city-regions to more accurately reflect actual fields of economic and social influence. The expansion of the mega-regions has been so rapid that formal political boundaries have not kept pace with it. The growth rates of the metropolitan area populations (based on formal statistical boundaries) might be declining, but peripheral areas continue to grow. If one considers the rapid population growth rates on the periphery, one may find that such urban agglomerations have not really stopped growing—or, at least, that their perceived declining growth rates may not be as significant as currently stated (Laquian 1994).
Differing Views on Mega-Urban Development

Since the mid-1980s, there has been a shift in perspective about the problematic nature of very large cities and their developmental role. An earlier "antiurban bias" in development policies has been replaced by an appreciation of the economic advantages of cities. The United Nations' *Cities in a Globalizing World: Global Report on Human Settlements, 1996* (UNCHS 1996, xxv) observed that urbanization has been an essential part of most nations' development towards a stronger and more stable economy. . . . The countries in the South that urbanized most rapidly in the last 10–20 years are generally those with the most rapid economic growth. Most of the world's largest cities are in the world's largest economies, which is further evidence of this link between economic wealth and cities. Cities and towns also have important roles in social transformation. They are centres of artistic, scientific and technological innovations, of culture and education. The history of cities and towns is inextricably linked to that of civilization in general.

McGee has pointed out that the growth of mega-urban regions has produced some positive results. He specifically cited the increased incomes of people in the region; the fact that such regions often produce 80 percent or more of a country's gross domestic product; the creation of employment opportunities, especially for women; and the great improvements in transportation and communication as well as domestic and international trade and commerce. McGee also noted the modernizing influence of mega-urban development in the spread of planning and governance ideas that enhance more coordinated development.

Hamre, for his part, has cited the positive elements of larger markets, closer integration with the global economy, the attractiveness of working in the region for technically qualified professionals, and the availability of trunk infrastructures and services that make such regions competitive with other countries (Hamre 1994). The global importance of urban growth has, of course, been analyzed by Sassen, who stressed the positive role of cities as centers of producer services, finance, employment, and coordination and control (Sassen 1991).

The rapid and continued growth of mega-cities and their surrounding regions, however, is alarming to many people. The large size of mega-cities
and their sprawling mega-urban regions is usually associated with serious problems. Traffic jams in Bangkok and Manila, slums and pavement dwellers in Kolkata and Mumbai, water shortage in Beijing and Tianjin, air pollution in Delhi and Shanghai, and social unrest in Jakarta and Karachi are some of the main concerns of both residents and visitors to these cities. Vast tracts of agricultural land on the periphery of such regions are lost to urban uses every year. The mega-urban regions suffer from water and air pollution. The litany of big city problems goes on and on, and there are few signs that solutions will be found soon.

The poverty, congestion, pollution, and many other problems of mega-cities and their surrounding regions have raised questions about the sustainability of large urban agglomerations. Current production and consumption patterns in these cities prompt many authors to question whether they can continue to grow without adversely affecting the lives of the future generations that will live in them. Many students of development see large city growth as ecologically, economically, and socially unsustainable. Rees and Wackernagel, for example, have argued that big cities are ecologically unsustainable by their very nature. To these researchers, consumption levels, as exemplified in Western cities, do not allow cities and their hinterlands to regenerate resources or dissipate their wastes fast enough. Lacking basic resources themselves, cities draw on an ever-expanding “ecological footprint” to support themselves (Rees and Wackernagel 1996).

A number of economists have argued that cities are the engines of economic growth in most countries of the developing world. As such, these economists argue that the size of cities does not matter. They cite “urbanization economies”—such as those of scale, agglomeration, location, infrastructure efficiencies, labor specialization, and management capabilities—along with other advantages as conducive to positive development. In a provocative article, Hamer argued that “[city] size per se is not the issue; instead, it is mismanagement at both the regional and local levels, and wrong-headed national urbanization policies promoted by physical planners with visions of optimal geography and very little sense of economics” (Hamer 1994, 175).

To Hamer, economic development and urbanization “are joint products of a wealth-creating process that generates large urban regions.” Concentration in very large cities enhances economic growth. This process of economic growth is accomplished by (1) focusing activity in a small portion of the nation’s landscape, which creates agglomeration economies, which in turn creates an inverse relationship between production cost per unit of output.
put and population size; (2) concentrating investments in regional trunk infrastructures for transport, communications, power, and water supply; and (3) gathering in an urban place a large labor force with a wide array of skills, a large number of suppliers, diversified financial and commercial services, venture capital, and access to information on foreign markets and technologies, as well as the amenities needed to attract managerial talent. In mega-cities, the local urban marketplaces concentrated purchasing power at the doorstep of the business community.

The pro-urban arguments of so-called expansionist economists have been questioned by a number of ecological economists in recent years. For instance, a conference convened by the Institute for Research on Environment and the Economy in 1993 concluded that "human beings depend upon a limited range of configurations (stocks and flows) of the Earth’s biological, geological, and atmospheric systems for healthy habitat, material and energy resources, and assimilation of wastes." The conference delegates questioned the premise of "expansionist economics" that "while price reflects both values and scarcity, healthy habitat, material/energy resources, and waste assimilation capacity are perpetually available or infinitely substitutable" (IERE 1993, 12).

The conference delegates also contested the claim that "there are no limits to growth." The limits, they argued, are imposed by the fact that economic activities occur in a finite physical world. The limits to growth were listed by environmental economists as (1) habitat, that is, human health requires that we maintain the quality of our habitat (the consonance of structure and function that constitutes ecosystem health); (2) resources, that is, the rate at which resource inventories are degraded through use (and abuse) should not exceed the rate at which they are regenerated; and (3) waste, which should not be generated to either contaminate ecosystems (in the sense that emissions become incapable of being assimilated within the parameters of human and ecosystem health) or to squander resources (i.e., whose loss constitutes the pointless forfeiture of opportunities).

Current development policies (globalization, unhampered economic competition, regional economic integration, trade deregulation, functional specialization, protection of existing business infrastructures, and emphasis on the primacy of material growth), according to Rees, serve to increase the size of high-density settlements. These mega-cities and regions, in turn, appropriate "carrying capacity" from other places and turn their surroundings into sinks for the waste they produce. Pursuing a classical economic doctrine based on the primary importance of growth, very large cities neg-
lect to recognize the fact that they exist in a finite ecological sphere. Wryly responding to the claim that cities are the engines of economic growth, Rees states that “however brilliant its economic star, every city is an ecological black hole drawing on the material resources and productivity of a vast and scattered hinterland many times the size of the city itself (Rees 1992, 49).

From an environmental viewpoint, the growing alarm about the rapid growth of cities and their ecological, economic, and social effects and impact has brought to the fore the age-old debate of whether the Earth is a steady-state economy with built-in limits (Daly and Townsend 1993) or whether market mechanisms, proper pricing, advanced technology, factor substitutability, and human ingenuity will make resources perpetually available or infinitely substitutable, as argued by classical expansionist economics (IRRE 1993). Those who are not too concerned about rapid urban growth argue that cities are the productive engines of national economies and that, in almost all countries, the great bulk of gross domestic product is produced in urban areas. As human beings congregate at very high densities in limited space, urbanism as a way of life grows. Economic forces arising from economies of scale, agglomeration, specialization, and location enhance greater productivity. From the individual to the organizational levels, economic competition in urban areas brings about the survival of the fittest.

Individuals who are worried about the state of cities, however, are concerned about the relationship between the built and the natural environments. Traditionally, it has been proposed that production is a function of land, labor, and capital. According to Marshall (1920), capital is made up of those material things that owe their usefulness to human labor, whereas land (or “natural capital”) is made up of things that owe nothing to human labor. Though human beings have no power to create matter, they do create utilities by putting things into useful forms (“cultural capital”). Such utilities can be increased in supply if there is increased demand for them—they have a supply price.

However, there are utilities over which human beings have no control—they are given as a fixed quantity by nature and have no supply price (land). The material things designed, built, and controlled by human beings (capital) have self-organizing properties in accord with market forces. However, they occur within the larger environmental system (land) that, while self-organizing, has finite limits. Cities, as the manifestations of human design, building, and control may function quite well within their human-built spheres. However, because they exist within the finite sphere of the natural ecosystem, there are natural limits to their growth.
In a book published by the Centre for European Studies titled *Sustainable Development and the Future of Cities*, Hamm and Muttagi (1999, 10) noted that “urban areas are by far, the most serious pollutants of our environment. They wrote that urban areas have become the functional entities by which humanity organizes its metabolism with nature. The material throughput of the human species is being transformed mostly in cities. Having no natural resources of their own, they import into the urban areas raw materials, capital, and information, which are transformed to emit wastes of all sorts. . . . They have to absorb new technologies, the changing demographic composition of populations, and new and massive migration streams. In the past, the hinterland from where these urban areas received their inputs and to where they expelled their outputs was relatively limited and in close proximity. The hinterland of the urban areas today is the entire globe. . . . With urban population growth, we observe increasing energy consumption and traffic; solid, liquid and gas wastes; decreasing availability of sinks; more pollutant hazards; and degrading technical infrastructures. While tropical rain forest depletion receive much attention . . . the enormous waste of natural and human resources caused in the urban areas of the world remains underestimated.

Clearly, Hamm and Muttagi do not believe that cities and mega-urban and megalopolitan regions in their current state are sustainable. They concluded that “if the present trend in industrialization, pollution, resource depletion, and species extinction continued unchanged, gradually, there will be a breakdown of society and the irreversible disruption of life support systems. This will end in sharpening distributional struggles and eventually in global harakiri” (Hamm and Muttagi 1999, 16).

The Emergence of Mega-Urban Regions in Asia

Asia currently has twelve of the world’s largest urban agglomerations (figure 1.1). By 2015, this number may increase to fourteen. Economically and socially, these urban agglomerations already dominate life in many Asian countries. Physically, the growth of some of these agglomerations has been so rapid that the processes of planning and governance have not kept pace with urban expansion. With Asian mega-urban regions becoming so
Figure 1.1. Urban Agglomerations in Asia. Istanbul not shown.
important in world urbanization trends, it is necessary to analyze and explain why some of these urban agglomerations continue to grow and others do not. The problems they now have and will continue to face in the future, various approaches that have been used or that may be used to deal with those problems, and some lessons that can be learned by urban agglomerations in other parts of the world faced with the same problems.

Even a cursory examination of the main features of Asian mega-urban regions reveals that they make up a complex mix of varied settlements due to the historical, economic, cultural, and technological factors that have influenced their development. Because of this complexity, it would be a mistake to lump together all the Asian cities in a homogeneous mass. Indiscriminately mixing the dynamics of East Asian and South Asian cities, for example, would most likely obfuscate understanding of the specific conditions in each set of cities. Planning and governance interventions that may be successful in cities like Seoul and Tokyo may not work at all in solving problems in Delhi, Dhaka, Karachi, Kolkata, or Mumbai. Planning mechanisms that have been used in countries in transition from centrally planned economies to more market-oriented systems (China and Vietnam) would probably not be very useful in dealing with problems in more market-dominated countries (India and the Philippines). Political traditions rooted in centralized control and bureaucratic hegemony would probably be ineffectual in managing cities created on the basis of decentralized authority and local autonomy.

Despite the differences among Asian mega-urban regions, however, they do share a number of characteristics, in much the same way that apples and oranges (or mangoes and mangosteens) can all be classified as fruits. The most notable commonality among these urban agglomerations is their population size, which ranges from less than 10 million to more than 26 million (see table 1.2). A second important consideration is the fact that these mega-urban regions have spread outward into adjacent areas, enveloping villages, towns, and cities, and at times linking up with the urban fields of other city-regions. A third common characteristic of Asian mega-urban regions is the economic, social, cultural, and political dominance that they exert on their national or regional hinterlands. Fourth and finally, on the basis of demographic, spatial, economic, political, and administrative features, it is possible to view all the Asian mega-urban regions as commonly following a pattern of organizing economic and social space so that they all have a densely developed mega-city core and an extended metropolitan region—and, some of them, a megalopolitan form as well.
<table>
<thead>
<tr>
<th>Urban Agglomeration</th>
<th>Metropolitan Area (square kilometers)</th>
<th>Population (millions)</th>
<th>Annual Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Tokyo</td>
<td>2.187</td>
<td>26.4 26.4 26.4 27.2</td>
<td>0.3</td>
</tr>
<tr>
<td>2. Mumbai (Bombay)</td>
<td>4.167</td>
<td>18.0 20.9 23.5 26.1</td>
<td>3.2</td>
</tr>
<tr>
<td>3. Kolkata (Calcutta)</td>
<td>1.785</td>
<td>12.9 14.1 15.6 17.2</td>
<td>1.7</td>
</tr>
<tr>
<td>4. Shanghai</td>
<td>6.340</td>
<td>12.8 13.1 13.6 14.5</td>
<td>0.0</td>
</tr>
<tr>
<td>5. Dhaka</td>
<td>1.528</td>
<td>12.3 15.3 18.3 21.1</td>
<td>4.9</td>
</tr>
<tr>
<td>6. Karachi</td>
<td>1.800</td>
<td>11.7 14.0 16.5 19.2</td>
<td>3.7</td>
</tr>
<tr>
<td>7. Delhi</td>
<td>3.182</td>
<td>11.6 13.4 15.1 16.8</td>
<td>3.0</td>
</tr>
<tr>
<td>8. Beijing</td>
<td>16.807</td>
<td>11.0 11.0 11.5 12.2</td>
<td>0.2</td>
</tr>
<tr>
<td>9. Osaka</td>
<td>1.890</td>
<td>11.0 11.0 11.0 11.0</td>
<td>0.0</td>
</tr>
<tr>
<td>10. Jakarta Raya</td>
<td>654</td>
<td>11.0 13.1 15.3 17.2</td>
<td>3.6</td>
</tr>
<tr>
<td>11. Metro Manila</td>
<td>636</td>
<td>10.8 12.4 13.8 14.8</td>
<td>2.9</td>
</tr>
<tr>
<td>12. Istanbul</td>
<td>1.991</td>
<td>9.4 10.8 11.8 12.4</td>
<td>3.1</td>
</tr>
<tr>
<td>13. Tianjin</td>
<td>11.919</td>
<td>9.1 9.4 9.9 10.7</td>
<td>0.5</td>
</tr>
<tr>
<td>14. Seoul</td>
<td>11.718</td>
<td>10.0 9.8 9.8 10.0</td>
<td>-0.4</td>
</tr>
<tr>
<td>15. Bangkok</td>
<td>1.568</td>
<td>7.2 8.0 9.0 10.1</td>
<td>2.1</td>
</tr>
<tr>
<td>16. Hyderabad</td>
<td>217</td>
<td>6.8 8.1 9.3 10.4</td>
<td>4.0</td>
</tr>
</tbody>
</table>

*Source: United Nations (2001, 12).*

Taking into consideration the commonalities and differences of the various Asian mega-urban regions included in this study, I have categorized them into four types. First are the technologically advanced East Asian cities. Osaka, Tokyo, and Seoul like their counterparts in North America and Europe, have extremely low rates of population growth. After an explosive annual growth rate of 7.6 percent in 1950–75, Seoul is expected to grow at an almost stagnant 0.02 percent in 2000–2015. Similarly, Tokyo grew at 4.2 percent a year between 1950 and 1975 but is expected to grow at only 0.19 percent in 2000–2015. Osaka grew at 0.45 percent a year in 1975–2000 and will not grow at all in 2000–2015. Tokyo and Seoul have relatively well-defined administrative and political jurisdictions encompassing highly urbanized areas. They have homogeneous populations, mostly employed in the formal sector. Tokyo has succeeded in curbing the massive environmental pollution that plagued it in the past, and Seoul has managed to deal with its serious housing problem. Both cities have evolved planning and governance mechanisms that adequately meet their demand for basic urban services.

Second are the mega-cities of China. Large cities in China, such as Beijing, Guangzhou, Shanghai, and Tianjin, have had low population growth...
rates as a result of migration and population control policies strictly enforced in the past. Since China’s shift from a centrally planned to a more market-oriented economic system in 1979, however, the populations of large Chinese cities have started to grow as a result of in-migration arising from a relaxation of the hukou household registration system (the adjusted expansion of metropolitan boundaries has also officially shown an “increase” in city-region populations). Though urban service levels in key Chinese cities are somewhat hard pressed, China’s high level of economic growth (an average annual growth of gross domestic product of 8.5 percent since 1979) and a recent boom in infrastructure development are tending to keep services up to meet citizen demand. Administrative reforms that focused on the decentralization of decision-making authority to local government units, land policy adjustments, public finance, and housing provision are also helping to improve urban planning and governance in these city-regions.

Third are the primate cities of Southeast Asia. Southeast Asian cities like Bangkok, Jakarta, and Metro Manila currently have moderate rates of population growth, although in 1950–75 they grew at annual rates of 4.8, 4.7, and 4.1 percent respectively. Annual growth rates in these cities are expected to decline in 2000–2015 to 3.0 percent in Jakarta, 2.8 percent in Metro Manila, and 1.9 percent in Bangkok. These cities are very important to national life because of their primacy and their political status as central government capitals. Though they are beset with many problems (inadequate housing, water shortage, congested traffic, environmental pollution), their recent investments in infrastructure (e.g., rapid transit) promise to improve life for city residents. They have also benefited from urban reforms attempting to bring about better urban and regional planning, as well as administrative coordination among local units within city-regions.

And fourth are the South Asian cities. Large cities in Bangladesh, India, and Pakistan, such as Dhaka, Delhi, Kolkata, Mumbai, and Karachi, continue to expand at relatively high rates, with population growth only expected to slacken in the 2000–2015 period. Between 1975 and 2000, Dhaka grew annually by 7.0 percent, Delhi by 4.0 percent, Karachi by 3.7 percent, Mumbai by 3.1 percent, and Kolkata by 2.02 percent. Furthermore, other intermediate-sized South Asian cities are also growing rapidly, with annual population growth rates in 2000–2015 projected at 3.1 percent for Lahore, 3.7 percent for Chittagong, 3.4 percent for Pune, and 5.0 percent for Surat (United Nations 2001, 12). The urban agglomerations of South Asia are already plagued with problems such as slums and squatting, inadequate trans-
port, high unemployment rates, and massive levels of environmental pollution. With their continued expansion, they will pose extreme challenges to urban planning and governance.

The vast differences among Asian urban agglomerations demand a more in-depth analysis of their growth patterns, with special emphasis given to the historical factors that have influenced their development. Some Asian cities, such as Beijing, Delhi, and Tokyo, have ancient origins and were the seats of powerful empires. Others, like Jakarta, Karachi, Kolkata, Metro Manila, Mumbai, and Shanghai, trace their roots to the colonial era, when they served mainly as trading and production outposts. The growth and development of Chinese cities was mainly controlled by central government policies focused on population and migration controls. Most Southeast Asian cities prospered because of their dominant roles as national capitals. All these factors are important considerations when attempting to explain the growth and development of each of the Asian mega-urban regions covered in this study.

East Asian Cities

Big cities in East Asia are technologically advanced, having passed through the industrial and even postindustrial developmental stages. Tokyo has been the largest city in Japan since the middle of the nineteenth century. When, as Edo, it was the capital of the Shogunate. After the Meiji Restoration of 1868, Edo was renamed Tokyo and became the capital of Japan. Although Tokyo was greatly devastated by the earthquake and fire of 1923 and American carpet bombing during World War II (1941–45), the city was rebuilt and quickly became the dominant center in the country. Tokyo’s population, which dropped to 3.5 million in 1945, increased at such a formidable rate that by 1969 it had reached 11.3 million (Royama 1972, 945).

Concerned about the expansion of Tokyo, the Japanese government pursued a policy of decentralizing industries and manufacturing to other urban centers such as Osaka and Nagoya. The structural adjustments of Japan’s economy, however—particularly the shift from industrial production to information technology—meant the continued dominance of Tokyo. Although Osaka and Nagoya initially attracted many rural-urban migrants from other parts of Japan, they eventually became out-migration areas for people flocking to the Tokyo metropolitan area. The concentration of people in the Tokyo region became even more marked with its emergence as a global center for finance and other services (Sassen 1991, 1994).
To more effectively manage the growth of Japan's largest city, the national capital region of Tokyo was defined and proclaimed in 1956. This region encompassed Tokyo city proper, the prefectures of Saitama, Kanagawa, and Chiba, and parts of four other prefectures. This new metropolitan region extended from 97 to 124 kilometers from central Tokyo. It was placed under the centralized jurisdiction of the Tokyo Metropolitan Government (Yeung 1990, 72). During the latter half of the 1980s, the Capital Tokyo Metropolitan Area was expanded again to cover eleven prefectures aside from Tokyo itself (Kanagawa, Saitama, Chiba, Ibaragi, Tochigi, Gunma, Fukushima, Niigata, Nagano, Yamanashi, and Shizuoka) to form an extended national capital region (Takahashi and Sugiyama 1996, 114).

At present, the official Tokyo national capital region covers 2,187 square kilometers and is run as a self-governing unit encompassing twenty-three wards (ku). Aside from the twelve prefectures, it also covers an area containing twenty-six cities, five towns, and one village. This built-up area had a population of 26.5 million in 2001; this is expected to increase to 27.2 million by 2015 (Vogel 2001, 116). The most recent Tokyo Megalopolis Concept Plan seeks to expand this territory, resulting in boundary adjustments that may increase the population of the Tokyo urban agglomeration to 33 million by 2025.

Osaka is the economic and industrial center of the Kansai region, which also includes Kobe, Kyoto, and Nara. Osaka, like Kyoto, is not an ordinary prefecture (ken) but an urban prefecture (fu). Osaka prefecture covers approximately 1,890 square kilometers and had a population of 11 million in 2001 living in Osaka City, thirty-two other cities, ten towns, and one village. The whole Osaka–Kobe–Kyoto Metropolitan Area, however, had a population of 17 million.

Japanese archeologists claim that humans have inhabited the Osaka area for more than 10,000 years. Osaka became a center of culture around the fifth century A.D., when Chinese cultural influence reached Japan through Korea. During the seventh century, a capital city was set up in the Osaka area that was modeled after the capital of China. Although the Japanese capital was moved to Nara and Kyoto afterward, Osaka continued to flourish as a center of trade and commerce. In 1583, Hideyoshi, who succeeded in unifying Japan, chose Osaka as his base and built Osaka Castle. In the seventeenth century, Japan's capital was moved to Tokyo, but Osaka continued its economic role and became known as the “kitchen of the nation.” Japan’s modernization under the Meiji Restoration in the nineteenth century undermined the powers of the merchant class that dominated Osaka, but these
entrepreneurs soon shifted to industry and manufacturing, reviving the economic vitality of the region. Although Osaka was seriously devastated by repeated air raids during World War II, it was quickly rebuilt and has become the second most important urban center in Japan.

Seoul, the capital of the Republic of Korea, does not qualify as a megacity according to the city-size definition of the United Nations. But it is included in this study because of its important role in the development of the country. The city traces its origins as the capital of the Paekche Dynasty, one of the three ancient kingdoms in Korea. The Koryo Dynasty made Seoul its capital in 1067. With the ascendancy of the Chosun Dynasty in 1392, Seoul became Korea's national capital. The city flourished within and beyond its fortified walls until Korea was occupied by Japan between 1910 and 1945. Seoul was almost completely destroyed during the Korean War, but since 1953 it has been rebuilt and transformed into a manufacturing and industrial base. Starting in 1956, Seoul's population grew explosively, with the annual growth rate reaching 10.8 percent in 1957, 19.2 percent in 1959, 16.8 percent in 1961, and 15.8 percent in 1962. By 1968, Seoul's population had reached 4.3 million and was growing at 8.3 percent a year (Kwon 1972, 256).

At present, the Seoul capital region is made up of the central city of Seoul, eleven suburban districts, and parts of Kyonggi province. It covers a territory of 11,718 square kilometers and had a population of 9.8 million in 2000. In 1995, the Korean government approved the Capital Region Management Plan, which provides the basic direction and guidelines for the location of economic activities as well as the distribution of population. As envisioned by this plan, by 2015 the Seoul national capital region will have a population of 20.2 million and will encompass Seoul, Inchon, Kyonggi province, nineteen cities, and seventeen counties (Kim 1999, 36).

**Chinese Cities**

China has had very large cities for centuries, with Chang'an (present-day Xi'an) said to have had more than a million inhabitants during the Tang Dynasty (A.D. 618–907), when it was the eastern terminus of the famed Silk Road, the trade route that linked Asia and Europe. China's current capital, Beijing, was founded as a military outpost in about 1045 B.C. under the Western Zhao Dynasty (1122–771 B.C.). It became Yanjing, the capital of the state of Yan, during the Spring and Autumn Period (722–481 B.C.) and the Warring States Period (403–221 B.C.). It was expanded by Kublai Khan
as Dadu (the Great Capital) in A.D. 1267–1271. By 1949, therefore, when the victorious Communist regime declared Beijing the state capital, the city had been the imperial capital of China for more than 800 years (Wu 1999).

Before 1949, the built-up area of Beijing was only 109 square kilometers. This was expanded to 707 square kilometers (with a population of 1.6 million) after the Communist takeover to make room for economic expansion as Chinese authorities pursued the socialist policy of transforming Beijing from a “consumptive” to a “productive” city. The Beijing master plans encouraged urban development outward—following a “palm and fingers” pattern, where transportation routes made up the fingers extending toward the southern and eastern parts of the region. Despite efforts to control development, however, the fingers around Beijing continued to extend outward, and urban development kept filling up the spaces between the fingers. In 1957, the Beijing master plan expanded the city’s territory to 8,860 square kilometers. A master plan prepared in 1982 envisioned that Beijing’s population would be kept below 10 million by 2000. This figure was exceeded as early as 1992 (Wu and Mao 1993).

To keep abreast of development, the current master plan for Beijing, which was approved by the State Council in 1993, expanded the municipality’s jurisdiction to include four inner-city districts, four nearby suburban districts, two outer suburban districts, and eight counties. The master plan has adopted the “scattered groups” or “urban clusters” strategy designed to turn the capital region into a polynucleated settlement. In this strategy, the central city area would have 6.5 million inhabitants and the rest of the inhabitants would be living in 14 satellite towns and 140 small and medium-sized towns (Mao 1996, 1–4).

Development in the Beijing region has been most rapid along the so-called Jing-Jin-Tang Expressway that connects Beijing with Tianjin and Tanggu Port. Along this main development corridor, nine special economic zones have been constructed: (1) the Beijing Economic and Technical Development Zone; (2) the Yotuge Economic Development Zone; (3) the Langfang Economic and Technical Development Zone; (4) the Langfang High-Tech Development Zone; (5) the Yat-sen International Scientific Park; (6) the Wuqi County Development Zone; (7) the Tianjin High-Tech Industrial Park; (8) the Beichen Development Zone; and (9) the Tianjin Economic and Technical Development Zone. In addition to the developments along the Jing-Jin-Tang Expressway, another eight development zones have been established in the region surrounding Beijing. These are (1) the Changping Scientific Park; (2) the Shangdi Information Industrial Base; (3) the Feng-
tai Scientific Park; (4) the Liangxiang Development Zone; (5) the Capital International Airport High-Tech Zone; (6) the Shunyi Development Zone; (7) the Yangjiao Development Zone; and (8) the Baigou Development Zone (Wu and Mao 1993).

In effect, therefore, the Beijing megalopolitan region now encompasses a widespread territory with an estimated population of more than 36 million. Within the region are two major cities under the jurisdiction of the central government (Beijing and Tianjin), two intermediate-sized cities (Tangshan and Langfang), and many towns and county seats. The megalopolitan region ranges all the way from the edge of the Great China Plain to the Gulf of Bohai and covers areas within the provinces of Hebei and Shandong. It has been proposed, in fact, that this Beijing megalopolitan region should be planned as a single entity (Ye 1986).

China’s largest city, Shanghai, owes its development to its coastal location, which has made it a natural center for overseas trade and commerce. After the defeat of China’s Qin Dynasty in 1842 by Western powers (in the Opium War), Shanghai became a colonial enclave with separate concessions run by Britain, France, Japan, Germany, the United States, and other powers. Because of Shanghai’s “colonial background,” the Chinese authorities tended to neglect its development after 1949. Later, Shanghai was turned into an industrial base in accord with Soviet planning concepts favoring the development of heavy industries in big cities.

In 1958, the Shanghai municipality annexed the counties of Baoshan and Jiading, increasing its territory to 5,908 square kilometers. Seven satellite towns were also annexed in 1990, expanding Shanghai’s jurisdiction to 6,340 square kilometers. At present, the Shanghai municipality encompasses ten urban districts within the city proper, four suburban districts, and six suburban counties (Yeung and Sung 1965, 5). Economically, however, Shanghai dominates the Yangtze River Delta region that links it with Nanjing, Suzhou, Changzhou, Zhenjiang, Nantong, Yangzhou, and Wuxi in Jiangsu province and with Hangzhou, Jiaxing, Huzhou, Ningbo, Shaoxing, and Zhoushan in Zhejiang province. Shanghai, as the “head of the dragon” in the Yangtze River delta, is now the dominant core of a megalopolitan region covering about 100,000 square kilometers with a population of 72.7 million (Shi, Lin, and Liang 1996, 536).

The Pearl River Delta cities of Guangzhou, Hong Kong, Shenzhen, Zhuhai, and Macao have functioned independently until recent times. Lately, however, they have tended to develop in an increasingly coordinated manner because of China’s regional development policies. The Pearl River
Delta, at present, has three levels of urban settlements. First, there are the 2 large cities of Guangzhou (6.7 million) and Hong Kong (6.9 million). At a second level are 9 medium-sized cities: Shenzhen, Macao, Zhuhai, Foshan, Jiangmen, Zhongshan, Dongguan, Huizhou, and Zhaoqing. A third tier is made up of 22 small cities that have county status and nearly 300 towns. The Pearl River Delta region, therefore, is a polynucleated megalopolitan region where no one center dominates. It is projected to have a population of 51 million by 2022, 18 percent of which will be in Hong Kong (Enright et al. 2003).

Southeast Asian Cities

Big cities in Southeast Asia are characterized by primacy—the very high concentration of a country’s urban population in a single agglomeration. All the Southeast Asian cities included in this study have populations many times larger than the country’s next-ranking urban settlement. They are also national capitals that have thrived by serving as the economic, commercial, administrative, and cultural centers of nation-states.

The city of Manila was founded in 1571 as the Spanish colonial capital of the Philippines. It thrived on the basis of centralized production of agriculture-based products as well as the main port of the galleon trade that linked the Philippines with Mexico and Spain. When the United States took over the Philippines in 1899, it kept Manila as the national capital. In 1905, pursuant to instructions from Washington, municipal elections were held in Manila to choose Filipino leaders, although actual administrative powers remained in the hands of American officials.

Manila was seriously devastated during World War II, but postwar reconstruction began immediately without the benefit of careful planning. Internal migration—triggered by the push of widespread rural poverty and a communist-led insurgency in other parts of the country on the one hand and the pull of the “bright lights” of Manila on the other—expanded the city’s population. By 1960, the four cities and four towns officially designated as parts of Metro Manila had reached a population of 2.1 million and occupied a territory of 362.2 square kilometers.

Since the mid-1970s, the City of Manila proper and the inner core municipality of San Juan have been losing population. The metropolitan population, however, has increased to the point that the jurisdiction of the national capital region has been expanded to cover thirteen cities and four towns. At the same time, towns in the surrounding provinces of Bulacan, Pampanga, Zambales, Rizal, Laguna, Batangas, Cavite, and Quezon have
been growing rapidly. The growth of towns located along the arterial roads emanating from Metro Manila has been very fast. So has the population growth rate around areas designated as special economic development zones or high-technology industrial parks.

The rapid expansion of the Manila mega-urban region, in fact, has prompted the government to start formulating a development plan for the whole island of Luzon with Metro Manila as its core. Such a plan includes schemes for the national capital region, the Calabarzon region (made up of the provinces of Cavite, Laguna, Batangas, Rizal, and Quezon), other provinces in the central plains of Luzon, and the two special economic zones established on the former U.S. military bases at Subic Bay and Clark (Laquian 1995).

The capital city of Indonesia, Jakarta, was established as the capital of the Dutch colony in the East Indies about 465 years ago. As Batavia, it was planned to mimic a Dutch settlement, complete with a network of canals. The canals, unfortunately, became the breeding place for deadly tropical diseases, and the Dutch colonizers were eventually forced to move to higher grounds. The coastal settlement expanded southward, with the Dutch quarters in the center and the natives settling on the periphery. By 1948, the population of Jakarta had reached about 2 million, living in a built-up area of about 200 square kilometers (including the town of Kebayoran Baru). This population almost doubled to 4 million by 1965, when the built-up area had expanded to 350 square kilometers. The number of city inhabitants increased further to 6.5 million in 1980, when the built-up territory had expanded to 650.4 square kilometers. The 1990 Indonesian census showed that the population of the Special Capital Region of Jakarta (Daerah Khusus Ibukota, or DKI Jakarta, also referred to as Jakarta Raya) had reached 8.2 million.

DKI Jakarta has the status of a province. Surrounding it is the metropolitan region referred to as Jabotabek, which is made up of DKI Jakarta, the municipality of Bogor, the administrative cities (kota administratif) of Tangerang and Bekasi, and the regencies (kabupaten) of Bogor, Tangerang, and Bekasi. Although Jabotabek is fragmented into local government units, a Joint Development Cooperation Board has been established to coordinate development activities in the region. Planning and governance in Jabotabek, however, is vastly complicated by the fact that many central government agencies exercise authority and power over activities in the region. The local units in the Botabek area are also within the jurisdiction of West Java province, and a number of large private development companies wield considerable clout in public affairs as well.
The United Nations set Jakarta Raya's population at 11.4 million in 2001, projected to increase to 17.3 million by 2015. However, the Jabotabek Metropolitan Development Plan—formulated in 1980 and revised in 1983 as the Jabotabek Structure Plan (1985–2005)—projects a population of 26 million as early as 2005, with more than 18 million people living in the built-up area of DKI Jakarta (Soegijoko 1996, 387). There are even suggestions that for better comprehensive planning, a wider territory that includes the city of Bandung and its surrounding regencies and towns should be taken as the megalopolitan region that actually serves as Indonesia's national capital (Dharmapatni and Firman 1995).

Since the signing of the Bowring Treaty between Britain and Thailand in 1855, *Bangkok* has grown rapidly because of its integration into the world economy. Bangkok's expansion has been fueled by lucrative rice production and exports, the growth of industry, manufacturing and tourism, and the economic boom following the Vietnam War. Late in 1960, the Greater Bangkok Plan 2533 was formulated, designed for a population of 4.5 million on 780 square kilometers of territory by 1990. This plan was later revised by the Greater Bangkok Plan 2000, which projected a population of 6.5 million people occupying 820 square kilometers by the end of the century (Sternstein 1972, 254).

In 1970, Bangkok was combined with Thonburi, across the Chao Phraya River, to form Greater Bangkok, increasing the combined city populations to 2.5 million. Two years later, the Government of Thailand decided to merge the two adjoining provinces of Phra Nakhon and Thonburi into a single city and together with Bangkok created the Bangkok Metropolitan Area (BMA). By 1980, the BMA's population reached 4.7 million. The continued outward expansion of Bangkok has prompted the creation of the Bangkok Metropolitan Region (BMR), encompassing areas in the five provinces of Pathum Thani, Nonthaburi, Samut Prakan, Samut Sakhon, and Nakhon Pathom.

Because of the outward adjustments of Bangkok's metropolitan boundaries, in 1988 the BMA's population was said to have "increased" to 5.7 million and the BMR's to 8.5 million (Goldstein 1994, 41). The United Nations, however, has set Bangkok's population at a smaller 7.3 million in 2000, projecting this to reach 9.8 million by 2015. This lower figure is obviously based on a much narrower definition of the metropolitan population and does not consider Bangkok's dominant role in the development of Thailand.

Taking a more expansionist view, the National Economic and Social Development Board (NESDB) estimated in 1990 that the BMR's population had reached 8.9 million and would increase to 12.6 million in twenty years.
Furthermore, the NESDB noted the emergence of an “extended BMR” comprised of the BMR itself and the provinces of Ayutthaya, Saraburi, Chachoengsao, Chon Buri, and Rayong. The total population of this extended BMR is expected to grow from 12 million in 1990 to 17 million by 2010, increasing its share of the national population from 21.5 to 24.3 percent (NESDB 1990, viii).

South Asian Cities

Urbanization in South Asia can trace its ancient roots to the Indus Valley civilization that flourished in preindustrial settlements like Harappa in the Punjab and Mohenjo-daro in the valley of the Indus around 2500 to 1500 B.C. (Sjoberg 1960, 40–41). The origins of India’s capital, Delhi, have been attributed to the legendary state of Indraprastha, which is prominently mentioned in the Mahabharata epic. Indian historians have written about the seven cities of Delhi, claiming that the present city is the eighth capital of independent India (Datta and Khosla 1972, 409). The medieval glory of Delhi can still be sensed in the city walls built by the Moghal emperor Shah Jahan during the seventeenth century or the monumental massiveness of the Red Fort.

The modern era in Delhi started with the transfer of India’s colonial capital inland from coastal Calcutta (now Kolkata) in 1912. However, city historians indicate that the British colonizers started settlements in the so-called Civil Lines north of the walled city earlier than that date. A well-planned New Delhi was planned and built south of the old city in the 1920s. By 1951, India’s capital had grown into a “town group” consisting of two cities, three major towns, and one minor town. All the local government units in the region were amalgamated into a single municipal corporation in 1958, although New Delhi and the Cantonment were allowed to keep their individual identities. In 1961, the Delhi metropolitan population reached 2.65 million for the entire “union territory” that constituted the federal capital of India. This territory was made up of the areas governed by the Municipal Corporation of Delhi (539 square miles with 2.3 million people), the New Delhi Municipal Committee (16.5 square miles with 261,545 people), and the Cantonment Board of Delhi (16.5 square miles with 36,105 people).

Administratively, public services in Delhi before 1958 were managed by four ad hoc authorities: the Delhi State Electricity Board, Delhi Road Transport Authority, Delhi Water and Sewage Board, and the Delhi Improvement Trust. The first three authorities were later merged into the Delhi Municipal Corporation, and the improvement trust was transformed into a develop-
From Mega-Cities to Mega-Urban Regions

Mumbai, Chawapuri, and the development authority under the Delhi Development Act of 1957. The Delhi Development Authority was created as a high-powered body, separate from the municipal corporation, to look after land acquisition and development. It took the leadership in formulating a development plan that came into force in 1962. This master plan envisioned a wider regional context and proposed a ring of towns around the urbanized area (two in Uttar Pradesh, five in Haryana, and one in the union territory itself).

In 2001, Delhi had a population of 13.3 million, occupying a territory of 1,397 square kilometers. At the projected growth rate of 3.4 percent a year (2000–2015), Delhi is expected to reach a population of 20.9 million by 2015. Some Indian planners acknowledge, however, that the current field of influence of Delhi extends way beyond its present territory and should encompass areas in the adjacent states of Uttar Pradesh, Haryana, and Rajasthan to form a larger megalopolitan region.

India’s largest city, Mumbai (formerly Bombay), is the capital of Maharaashtra state and the acknowledged commercial center of India. This port city thrived not only because of manufacturing (particularly cotton and textile) but also with international trade and commerce during the British colonial period. The Bombay Municipal Corporation Act of 1888 specified eight statutory authorities to manage specific activities of the city government—mainly public works, water and sewerage, health, and solid waste disposal. City authorities became so concerned about the heavy industrial pollution in the inner city that they sought to transfer many of the plants to the outskirts early in the city’s history.

The first postindependence plans for Mumbai in 1948 proposed the creation of satellite towns north of the city. In 1958, another plan resulted in the establishment of a township across the Thane Creek to draw away population from the crowded inner city. This became New Mumbai in Thane District, which rapidly grew under the guidance and management of the City and Industrial Corporation of Maharashtra state. The New Mumbai Municipal Corporation was established in 1991 and assumed responsibility for nine of the twenty-five urban nodes in New Mumbai. Later, the city was divided into six administrative zones, and the Mumbai Municipal Corporation created sixteen Ward Committees to solve local problems such as water supply, sewage disposal, road repairs, and maintaining streetlights.

At present, the Mumbai Metropolitan Region (MMR) includes Mumbai, New Mumbai, and Thane. Thane, a municipal corporation created in 1982, encompasses Thane District and thirty-two surrounding villages that all fall within the jurisdiction of the Thane Municipal Council. Thane District had
a population of 1.2 million in 2001. Also within the MMR are eighteen urban centers located on the periphery of Greater Mumbai. Mumbai City had a population of 11.9 million in 2001, but the whole Mumbai Metropolitan Region had 16.5 million, projected to increase to 22.6 million by 2015.

Kolkata (formerly Calcutta) is the capital of West Bengal state and the second largest city of India. It started as a trading post near the end of the seventeenth century and became the capital of India under the British Empire. In 1912, India’s capital was moved to Delhi, but Kolkata continued as an important commercial and industrial center for Eastern India. By 1966, the Kolkata Metropolitan District extended over nearly 490 square miles and contained a population of 7.5 million (KMDA 2004). Within the district, Kolkata City proper covered about 37 square miles and had 3 million inhabitants. Also in the district were thirty-four municipal towns, an almost equal number of nonmunicipal towns, and more than a hundred villages in a built-up area stretching on both sides of the Hooghly River over 20 miles north and 15 miles south of the twin cities of Kolkata and Howrah (Walsh 1969; Ashraf and Green 1972, 301). By 2001, Kolkata City had reached a population of 4.5 million, and the metropolitan area had 13.3 million inhabitants. At an annual growth rate of 2.0 percent, Greater Kolkata is expected to reach a population of 16.7 million by 2015.

Administratively, the Kolkata metropolitan area is divided into three municipal corporations, thirty-four municipalities, and a number of urban localities. The Kolkata Metropolitan Development Authority is responsible for the overall planning of the region and is in charge of large-scale urban infrastructures. The Kolkata Municipal Corporation (KMC) was the first local unit in India to create the mayor-in-council form of urban governance. Under this system, the mayor, deputy mayor, and up to ten elected council members collectively exercise the executive powers of the corporation, functioning as a cabinet. The KMC also administratively decentralized specific responsibility for certain urban functions to borough committees at the ward level.

Dhaka, the capital of Bangladesh, became an important settlement during the seventeenth century, when it was the Mughal capital of Bengal province (1608–1704). The British took over Dhaka in 1765, and it became the capital of Bengal in 1905. After the partition of British India in 1947, Dhaka became the capital of the Pakistani province of East Bengal and, in 1956, the capital of East Pakistan. In the early 1970s, the Bangladeshi-speaking population of East Pakistan waged a violent rebellion against Pakistan. Dhaka suffered
considerable damage during this Bangladeshi war for independence, but it was gradually rebuilt and proclaimed the capital of Bangladesh in 1971.

In 1950, Dhaka had a population of 417,000. But after independence in 1971, it grew at the high annual growth rate of 6.6 percent, so that by 1975 its population had reached 2.1 million. The city currently has a population of 12.5 million, which is projected to increase to 22.8 million by 2015, when it is expected to be the second largest urban agglomeration in the world, second only to Tokyo.

Karachi was settled as a small fishing village and became Pakistan’s largest city, with a current population of more than 10 million. In 1843, when the British Army conquered the province of Sindh, the colonizers chose Karachi as a coastal base. When a cholera epidemic ravaged the settlement in 1846, a Conservancy Board was organized, which in turn was upgraded into a Municipal Committee in 1853. In 1933, the City of Karachi Municipal Act was passed, and the Municipality of Karachi was given the status of a municipal corporation. Karachi was made the capital of the new nation-state of Pakistan in 1947 after the partition of the country from India.

By 1950, the population of Karachi had reached more than a million and was growing at 5.4 percent a year. The metropolitan population totaled almost 4 million in 1975. In 1976, the Karachi Municipal Corporation (KMC) was upgraded to a metropolitan corporation. A separate Zonal Municipal Committee was set up in Karachi in 1987, but in 1994 this committee was again merged with the KMC. Five district municipal corporations were also created in the Greater Karachi area in 1996 to adjust to the expansion of the metropolitan area.

The most far-reaching changes in the planning and governance of Karachi occurred on August 14, 2001, when the Government of Pakistan implemented the Devolution Plan creating the City District Government of Karachi (CDGK) as well as 18 town administrations and 178 union councils all over the country. By that date, the population of Karachi exceeded 10 million. Under the devolution scheme, the jurisdiction of the CDGK was extended to 18 towns (Balida, Bin Qasim, Gadap, Gulberg, Gulshan-i-Iqbal, Jamshed, Keamari, Korangi, Landhi, Liaquatabad, Lyari, Malir, New Karachi, North Nazimabad, Orangi, Saddar, Shah Faisal, and a locality called SITE). The new law also introduced a new form of city government. The City Council was headed by the city nazim, assisted by the city naib nazim and district coordination officers. Each town was headed by a town nazim, assisted by a town naib nazim and a town municipal officer (CDGK 2004).
The Planning of Asian Mega-Urban Regions

All the mega-urban regions covered in this study have elaborate city and regional development plans. Some of these plans trace their origins to ancient principles derived from religious rites and rituals, quite a number were formulated by colonial administrators, and many were prepared by local planners and international consultants. The plans for Beijing are derived from rituals prescribed in the Zhou Li, which set down explicitly the official rites (including city building) that were practiced during the Zhou Dynasty (1051–403 B.C.) (Nourse 1943, 49; Wright 1977, 47).

Likewise, archaeologists have concluded that the plans for cities in the Indus River Valley, such as Mohenjo-daro and Harappa, reflect cosmological efforts to establish on Earth an idealized notion of the universe (Sjoberg 1960, 40–41). The Khmer cities of Angkor Wat and Angkor Tom (Pym 1968), as well as the centers of Hinduized kingdoms in Indonesia (Borobudur), were also planned along cosmological lines. Chinese cities from Chang’an to Beijing were planned in accordance with classical principles and rituals based on the divine nature of the emperors, the metaphysical influence of wind and water (feng shui), and admixtures of Buddhist, Taoist, and other religious traditions (Wu 1986).

Despite the long tradition of Asian city planning, however, the great majority of Asian urban agglomerations were planned and developed in accordance with Western concepts rooted in their colonial backgrounds. The plans for Intramuros (the original walled city of Manila in the Philippines), Batavia (now Jakarta) in Indonesia, Kolkata and Mumbai in India, and Karachi in Pakistan were drawn up respectively by Spanish, Dutch, and British colonial planners. In these settlements, the carefully laid-out grids of city streets and the clearly delineated boundaries of restricted quarters where the colonial officials and their families lived contrasted sharply with the inchoate forms of the “native quarters” occupied by the indigenous populations.

Most plans for colonial cities in Asia were derived from Western planning principles designed to deal with problems of health, sanitation, mobility, and safety. Later, they were also influenced by efforts to achieve the “city beautiful ideal,” with its emphasis on parks, open spaces, well-appointed residences, tree-lined boulevards, and other types of controlled land use patterns. Early planners like Howard, Geddes, Lutyens, and Burnham strove for a comprehensive approach to city planning, and some of them tried to apply this approach to Asian cities. Examples of these efforts in-
clude the plans of Howard for Bangalore, Lutyens for Delhi, and Burnham for Manila and Baguio (Hall 1988; Mumford 1961).

In general, two planning approaches have exerted a major influence on the development of Asian mega-urban regions: “master planning” and “comprehensive strategic planning.” Master planning, the older of the two, has ancient, colonial, and socialist roots. Ancient city master plans, such as those used to establish the imperial cities of China, strictly followed planning principles, such as a rigid north-south orientation, the construction of city walls, how many city gates were to be cut in those walls, the exact number of vertical and horizontal streets that form an urban grid, and the balanced locations of temples and ceremonial altars. These master plans were so rigidly followed that imperial cities were often built in open spaces from scratch or on the razed ruins of conquered settlements.

During the colonial period, master plans applied to Asian cities were mainly copies of those used in the West. The plans for Metro Manila conformed to generic plans used in the Americas that focused on the plaza mayor (where the cathedral, city hall, and military barracks were concentrated), neatly laid-out street grids, and the building of city walls. The Dutch plan for Batavia (now Jakarta) featured a network of canals and lanes. In cities like Delhi, Dhaka, Karachi, Kolkata, and Mumbai, colonial master planning was based on British town and country planning traditions, which were mainly concerned with land use, the layout of physical infrastructures, the preservation of green space, and aesthetic urban design.

Such British traditional planning had a strong basis in geography—many master plans, in fact, took as a planning unit such geographical configurations as river basins, watershed areas, or mineral resource bases. They tried to use natural science approaches to estimate what people needed and how those needs could be met within an environmentally sustainable system. Often, colonial master planning aspired to achieve aesthetic ideals, as in the garden cities of Bangalore and Singapore.

In the socialist tradition, master planning was based on the “scientific” notion that most things were knowable. There is the assumption that trained professional planners can predict future developments and prepare the physical setting for such developments. Using such tools as statistical analysis, sample surveys, and (sometimes) public consultations, planners believe that they are able to prepare as complete a scenario as possible of future events.

Typically, a socialist master plan would set targets to be achieved at a future date (e.g., the current Hanoi master plan sets the target at 5 million people by 2025). The population target may be based on careful population
projections, or it may reflect a purely political decision (Vietnamese authorities were reputed to have planned for a Hanoi of 5 million people because they could not accept a capital city that was smaller than Ho Chi Minh City in the south). From whatever population target is set, other targets are derived (e.g.: to increase housing floor space area to 12 square meters per person; to achieve per capita income of $800 per year; to double green space and park area from what was available in 1995). The resource requirements for implementing the plan are derived from these targeted figures. A typical master plan places a great deal of stress on the urban infrastructure. The road and rail network becomes the “backbone” of the plan. Often, the notion of an axis for development becomes the main feature of the plan. Precisely plotted around this development axis are carefully demarcated proposed land uses.

In more recent years, a number of Asian mega-urban regions have formulated and adopted comprehensive and strategic plans. In contrast to master planning, strategic planning derives its key ideas from wide-ranging socioeconomic analysis. Instead of focusing on a desired outcome at the end of a planning period, strategic planning is more concerned with the process by which economic and social activities can bring about desired outcomes at specific points in time. Strategic planning does not assume that complete knowledge can be attained. Instead, it projects known information up to a certain point and attempts to anticipate developmental trends so that planned action can be formulated to deal with those trends. In Asia, strategic planning has been mainly used in countries where the economy is more influenced by the market than by government intervention. In some countries, such plans are often developed as “indicative plans,” which are not formally adopted into law and thereby serve mainly as guides rather than directives for development.

In analyzing planning practices in Asian mega-urban regions, this book focuses on a number of issues that may help to determine whether or not the plans formulated and adopted in these city-regions have been able to effectively guide development:

- the extent to which the urban and regional plan reflects or does not reflect a developmental vision of the city-region;
- how the plans integrate development schemes for the inner city, the extended metropolitan region, and the megalopolitan region;
- the balancing of cultural and aesthetic conservation with the technological developments arising from rapid globalization; and
- efforts to achieve environmental protection and conservation in the light of technological advances and the drive for rapid economic growth.
This book also reviews both urban and regional plans as well as planning processes that have been used in Asian mega-urban regions to determine what approaches have worked and have not worked. In particular, it analyzes (1) detailed plans for the redevelopment of inner cities that often feature cultural heritage conservation, the improvement of deteriorating urban services, and the provision of affordable housing; (2) metropolitan area planning, which is generally focused on basic urban infrastructure, like water and sewerage, drainage, transport systems, traffic management, energy provision, and solid waste collection and disposal; and (3) megalopolitan planning for the effective functioning of polynodal systems of human settlements, including the allocation of open and green space, conservation of agricultural land, balancing of relationships between residence and place of employment, entertainment and basic service centers, and enhancement of environmental sustainability.

In analyzing the role that urban and regional planning has played in the development of Asian mega-urban regions, this study also considers the relationship of planning efficacy to such factors as (1) the population size and spatial extent of the mega-urban region; (2) the level of economic development, as reflected in the gross domestic product, per capita income, and structural composition of the city-region’s economy; (3) the relative fragmentation or unified nature of the local government jurisdictions within the mega-urban region; (4) the type of planning approaches used in the mega-urban region (master planning or strategic comprehensive planning); and (5) the jurisdictional scope of the governance mechanism used in the city-region. In other words, do very large cities tend to have urban and regional plans that effectively guide their development, or is planning more productively employed in smaller and intermediate-sized cities? Are mega-urban regions in high-income countries more likely to have more effective planning mechanisms than those in poorer ones? Has the imposition of unified regional governance mechanisms improved the quality of urban plans? What, in effect, constitutes effective urban and regional planning as revealed in the development of Asia’s largest mega-urban regions?

The Governance of Mega-Urban Regions

There is common agreement among development theorists that the governance of mega-urban regions is the key to making them more livable. However, there are differences in views on exactly what good governance means. In some cases, urban governance is primarily seen as effective and efficient...
management of public affairs. In this book, governance is interpreted more broadly to include public processes related to "how a political unit sets its visions and goals of development, translates this vision into policies, selects its leaders, adopts programs and projects, raises and allocates resources, implements programs and projects, resolves conflicts arising from varying decisions and interpretations, enforces accountability on decision makers, evaluates and monitors the effects and impact of programs and projects and then feeds the findings of monitoring and evaluation to policy makers, program implementers, and the general public" (Laquian 2002a, 77).

Broadly, governance may be defined as "the mechanisms, processes and institution through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations and mediate their differences" (Ruble et al. 2001). As an essentially political process, governance encompasses issues of who governs, the just and equitable allocation of benefits and costs, and the relationship of civil society with government (McCarney 1996b, 4).

In December 1998, Asiaweek published a special report on the "quality of life" in forty Asian cities. It ranked the "livability" of these cities according to various criteria, such as economic opportunity, environment and sanitation, health care, transportation, personal security, housing costs, and leisure. Among the cities of Asia, the survey ranked Tokyo as number one in livability, despite its problems with affordable housing, garbage disposal, and environmental pollution. Ranked second and third were two other Japanese cities, Fukuoka and Osaka (Choong 1998).

In analyzing the statistics on the cities surveyed, it is interesting to note what correlates most with a city's livability. The data showed that average income per capita was the main factor correlated with a city's ranking. The top ten cities that had the highest per capita income all placed within the top fourteen cities in livability. Tokyo's per capita annual income of $51,374, Osaka's of $39,271, and Fukuoka's of $24,548 clearly outranked the incomes of all other cities. The lowest ranked city according to the income criterion was Yangon (formerly Rangoon), with a per capita annual income of $66. The importance of wealth was also shown in the fact that seven of the cities with the highest per capita levels of expenditures for education ranked among the top ten cities. Hong Kong, which invested $857 per person a year for education, topped this category and ranked seventh overall. The same pattern was seen in rankings according to the number of hospital beds available per 1,000 people. Here again, the seven cities that provided the most hospital beds ranked among the top ten cities overall.
An interesting aspect of the *Asia Week* survey was the suggestion that a city’s size seemed to have mattered in making the city work more effectively, albeit in the opposite direction. Among the top ten cities, only Tokyo and Beijing had populations in excess of 10 million, whereas the seven top-ranked cities were quite small (Georgetown, Malaysia, had just over a million inhabitants, and second-ranked Fukuoka had 1.3 million). Small size, which may make it easier to manage urban affairs may be related to livability. Conversely, it was also suggested that small cities often found it difficult to compete with larger ones in attracting good managers and administrators. They also tended to have a smaller tax base, which limited their ability to mobilize resources. In the qualitative judgment of people interviewed for the survey, therefore, city wealth and size were considered important but not sufficient conditions to make a city more livable. The survey respondents considered effective and efficient governance the key issue in achieving a better quality of life in cities.

The key elements of good governance mentioned in the survey were:

1. *the rule of law*, or legal frameworks that are fair, predictable, and equitably enforced;
2. *transparency*, or the free flow of information that enables members of the society to understand and monitor the institutional processes affecting their lives;
3. *effectiveness and efficiency* in meeting needs through the best use of resources;
4. *accountability*, whereby decision makers (in government, the private sector, and citizen groups) answer for their actions to the citizenry;
5. *responsiveness*, the ability and willingness of leaders and administrators to serve the interests of stakeholders;
6. *consensus*, which takes the form of mediating different aspirations through conflict resolution, bargaining, and compromise to reach agreement on what is in the best interests of the community;
7. *equity*, which involves opportunity for all men and women to improve their well-being; and
8. *strategic vision*, a long-term perspective on what is needed for the society to grow and flourish in a sustainable way.

The views expressed in the *Asia Week* survey confirmed at least two meanings attached to the concept of governance. The first meaning is narrowly administrative and managerial. This is reflected in the first four ele-
ments mentioned above, such as reliance on the rule of law as the basis for public decisions, transparency in decision making, effectiveness and efficiency in the use of resources, and accountability for actions by decision makers. These elements are usually what people mean when they refer to urban governance as city management.

The other meaning of governance is more political, which is embodied in these four elements listed above: responsiveness to citizen interests and demands; consensus, the process through which negotiation, accommodation, compromise, and bargaining are used to arrive at common goals; equity, which greatly helps in maintaining the stability of a society by avoiding bitter polarization; and the incorporation of these political outcomes in a strategic vision, on the basis of which citizens elect and select their leaders.

In recent years, the political elements of governance noted above have become widely accepted as key elements of liberal democracy. According to Leftwich (1994), the renewed emphasis on the political aspects of governance since the 1980s can be attributed to (1) the effects and impact of structural adjustments imposed by the World Bank and the International Monetary Fund on the economic and political situations of many developing countries, (2) the dominance of neoconservatism in the West, (3) the collapse of the former Soviet Union and other communist regimes, and (4) the rise of pro-democracy movements in the developing world and elsewhere.

In the mega-urban regions considered in this study, at least three types of governance structures have been used at various times in their history:

- **Autonomous local governments.** Considerable autonomy is given to local government units (cities, towns, municipalities) in a mega-urban region to enable them to independently carry out planning, policy-making, legislation, and the execution of government functions. Examples: Metro Manila between 1945 and 1969, Guangzhou, Hong Kong, Macao, and Shenzhen in the Pearl River Delta.

- **A mixed system of regional governance.** Authority, power, and resources are shared among central, regional, and local government institutions, and responsibilities for public functions are allocated to specific levels of government. Examples: Bangkok, Dhaka, Jakarta, Kolkata, present-day Metro Manila, and Mumbai.

- **Unified regional governance.** A single governance structure plans, manages, finances, supports, and maintains services in an areawide territory, and authority and power are vested in this single unit. Examples: Beijing, Seoul, Shanghai, and Tokyo.
The choice of the governance structure in a specific mega-urban region, of course, depends on the particular historical, cultural, and political characteristics of a country. For example, in Walsh's pioneering work on the administration of urban regions, she has suggested five types of systems: (1) regionally organized systems, (2) comprehensive local government systems, (3) multijurisdictional systems, (4) administrative systems without regional organization, and (5) field administration systems (Walsh 1969). In this book, an attempt is made to go beyond the administrative structures proposed by Walsh to encompass much broader governance systems. I also try to link the type of mega-urban region with the specific governance structure used in a specific city-region. For example, why do mega-urban regions in East Asia tend to have unified metropolitan or regional governments? What is the role of higher levels of government (provincial, state, central) in the creation of such unified areawide structures?

In the case of Southeast Asian cities, mixed regional governance mechanisms have been favored. Such mixed regional governance systems vary, however, from Metro Manila, where strong traditions of local autonomy have created fragmentation among local units, to Bangkok Metropolis, where a more centralist and unified system has been used. In countries in transition from centrally planned to more market-oriented economies (e.g., China and Vietnam), unified governance structures have been widely used. Mixed governance structures, however, have been favored in South Asian cities, largely because of institutional approaches derived from colonial administrations and the complex makeup of urban societies fragmented along ethnic, linguistic, religious, economic, and political lines.

In analyzing the various approaches to governance taken in the mega-urban regions that it covers, this book attempts to identify the key variables that are associated with the outcomes of good governance mentioned above. For example, to what extent does the granting of greater autonomy to local government units achieve democratic goals like popular participation in the selection of leaders and policymaking? Theories of basic democracy propose that local autonomy fosters the responsiveness of leaders to citizen demands and ensures the accountability of power holders to civil society. What has been the experience in Asian mega-urban regions to support or negate these assertions? Has the widespread adoption of decentralization schemes in many countries in Asia resulted in greater transparency in the conduct of public affairs? Have urban citizens in autonomous local units achieved greater consensus in decision making? Are smaller local government units better at achieving political consensus or at integrating the developmental visions of their leaders into policies and programs?
Policy advocates supporting the use of unified regional governance have generally justified the use of this structure from the point of view of efficiency. They have argued that the complex nature of the urban economy, the existence of varied ethnic groups, religions, political cliques, and special interest groups, and the institutional fragmentation of governance structures in mega-urban regions work against cooperative efforts to achieve common welfare. They believe that a number of basic urban infrastructure and services are, by their very nature, best provided at an areawide scale. Among these are integrated water supply, sewerage, drainage and sanitation systems, mass transit, and traffic management schemes, energy production and distribution networks, and solid waste collection and disposal.

Unified urban governance systems, these policy advocates have argued, take advantage of economies of scale, agglomeration, and location. Urban problems, such as floods, epidemics, crime, and environmental pollution, do not respect political boundaries and demand unified action. To the fear that unified governance based on a higher metropolitan or regional tier tends to create a barrier between citizens and their governments, supporters of unified governance structures counter that modern information and communication technologies (e.g., newspapers, radio, television, telephones, the Internet) can overcome communication gaps. Metropolitan and regional governments, they believe, tend to elevate people’s concerns from purely local issues (street cleaning, traffic calming, school board financing, street crime) to broader issues (reliable energy supply, traffic and mobility, environmental pollution). Unified governance over regional jurisdictions is also seen as a way of increasing financial resources, achieved by a larger and richer tax base and raising the credit rating of the unified metropolitan or regional government that enables it to borrow funds for lumpy infrastructure projects. This basic issue between grassroots democracy and higher levels of citizen participation on the one hand and the search for more efficient and cost-effective delivery of areawide urban services on the other will be explored more fully in chapter 3 and the other sections of the chapters below that touch on governance.

A particularly interesting aspect of governance in Asian mega-urban regions is the huge size of these agglomerations and their evolution into multinodal systems of settlements. In most instances, these regions encompass areas that cut across town, city, municipal, metropolitan, provincial, and state boundaries. This crosscutting tendency has naturally created administrative, political, and institutional fragmentation, which makes cooperative and coordinated action extremely difficult. In this book, the prospects for establishing areawide regional mechanisms in Asian mega-urban re-
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gions will be fully explored. By citing experiences in a number of mega-urban regions that have attempted to establish such governance structures, the pros and cons of unified structures will be carefully analyzed.

Another interesting aspect of governance explored in this book is the rapidly increasing role of nongovernmental organizations, people’s organizations, and community-based organizations in the business of governance. The emergence of civil society in rapidly changing mega-urban regions is palpable in Southeast Asian and South Asian cities, but it does not seem so apparent in East Asian and Chinese cities. What are the future implications of the expanding role of civil society in mega-urban region governance systems that seek both popular participation and civic involvement on the one hand and more technologically driven and bureaucratic service-provider mechanisms on the other? Can the twin ideals of liberal democracy and efficient delivery of urban services be achieved in the complex and multi-ethnic social structures of Asian mega-urban regions?

About This Book

The primary concern of the present volume is the role played by planning and governance in the development of mega-urban regions in Asia. This objective is based on the premise that, if mega-urban regions play an important role in national economic and social development, more effective and efficient planning and more responsive, transparent, and accountable governance can be used as instruments to enhance that developmental role. The book, therefore, looks at the urban situation in Asia at two levels—at the level of the big city and its hinterland, and at the level of the mega-urban region and its role in national development.

The mega-urban regions considered in this book represent a varied and complex set of urban settlements, ranging from a global city like Tokyo, which wields significant influences on developments beyond its physical boundaries, to a special administrative region like Hong Kong, which with its links to Guangzhou, Macao, Shenzhen, and Zhuhai and aspires to global city status. A key objective of the book is to identify certain common characteristics in the demographic, economic, social, and political growth patterns of these disparate urban settlements in order to explain both their primary urban concerns and also what policymakers, administrators, and civil society groups are doing to effectively deal with those concerns. The book analyzes approaches to planning and governance and attempts to determine what policies and programs work or do not work. By using empirical case
studies focused on organized efforts to plan and govern, the book identifies certain lessons learned and rigorously analyzes the circumstances in which these lessons were deemed relevant or not.

An important aspect of this book is the ideological context within which planning and governance functions have been carried out. Four of the original city-regions studied (Beijing, Guangzhou, Ho Chi Minh City, and Shanghai) are in countries in transition from a centrally planned to a more market-oriented system. The other city-regions represent settlements in economic systems that are market dominated. Three are high-income city-regions with ample resources for urban management and governance (Osaka, Seoul, and Tokyo). Another three are medium-income city-regions struggling with problems of urban service delivery (Bangkok, Jakarta, and Metro Manila). The remaining five city-regions (Delhi, Dhaka, Karachi, Kolkata, and Mumbai) are beset with serious problems.

In focusing on the planning process, this book compares and contrasts the basic concepts, processes, and procedures used in “master planning,” favored in China and Vietnam, and “comprehensive strategic planning,” as practiced in countries adhering to a market orientation. The book describes how these two approaches, though originating in extremely different planning traditions, now seem to be growing closer together as urban officials attempt to deal with very similar problems. The book seeks to explain how planners deal with such concepts as the “rationality” of the planning process, how societal development goals are set, the process of accommodating the varied interests of stakeholders, and how studies and schemes embodied in a plan are translated into binding policies and statues.

As far as governance is concerned, this book uses a structural-functional framework that focuses on how policies are formulated, adopted, executed, and evaluated. It takes an in-depth look at the performance of key public functions devoted to effectively and efficiently providing urban services like water and sewerage, transportation, housing, solid waste collection and disposal, and environmental protection. On the basis of case studies of actual projects, the book cites concrete examples of both successful and unsuccessful efforts. At the same time, it analyzes the specific circumstances in each city-region that accounted for these results.

Methodology

At the conceptual level, this book starts by questioning the tendency in urban studies to view the development of cities and mega-urban regions as a
dependent variable. In this approach, the rapid growth of cities is seen as a residual outcome of various influences, such as technological innovations (e.g., the steam engine, the automobile, electrical energy), demographic changes (internal migration, declining death rates), developments in information technology (telegraph and telephone, computers, fiber optics), or processes of capitalist accumulation (transnational capital flows, foreign direct investment, Fordist and non-Fordist production systems).

Moreover, I attempt to regard urbanization as an independent variable in this book. I propose that if a conscious effort is taken to plan, shape, develop, and govern mega-urban regions in a more effective way, it is possible to make them not only more livable and sustainable but to transform them into policy instruments for creating economic and social change in the nation-state and beyond.

In carrying out the field research for the first stage of this book’s development, the Asian Urban Research Network (AURN) research teams concentrated on studies at three levels: (1) planning and governance dynamics in the inner-city core, (2) developments in the urban periphery, and (3) the changing situation in the mega-urban region. In examining changes in the inner city, the study concentrated on such aspects as the onset of urban decay in the city core, the physical deterioration of houses and other urban structures, critical shortages of urban services, the migration of poor people to inner-city slums, and the demographic pressures leading to eviction and resettlement of people living in the central city. The research teams also analyzed government programs to redevelop the urban core, the increases in land values resulting from these programs, and the “gentrification” of housing as formerly undesirable areas became more developed.

Shifting to a wider metropolitan scope, this study focuses on both the positive and negative effects and impact of urban sprawl. The locations of basic urban services, radial and circumferential roads, industrial and manufacturing sites, and green space are some of the main concerns of planning in the extended metropolis. In addition, the study analyzes the problems related to the rapid conversion of rich agricultural land to urban uses, the increased costs of extending urban services to outlying towns and villages, and the environmental pollution caused by uncontrolled activities related to agriculture, manufacturing, and industrialization.

A major concern of the study in relation to the formation of mega-urban regions is the search for planning approaches that transcend the formal political and administrative boundaries of urban and rapidly urbanizing areas. In some countries, spatial units such as river basins and deltas, areas with
unique microclimates, and those possessing common resource endowments have been used as “natural” planning regions. This book adopts this territorial approach to planning and governance, not only to get over the problems created by administrative and political fragmentation but also to achieve more comprehensive and holistic planning and governance.

By far the most difficult policy issue faced by mega-urban regions of Asia is governance. Historical, constitutional, and ideological conditions have tended to create multifarious jurisdictional units around urban centers. Strong traditions of local autonomy have encouraged the growth of small governance units, such as neighborhood committees, townships or village councils, administrative districts, municipal governments, and special-purpose districts. Although many urban authorities recognize the need for better cooperation and coordination of urban-related activities, the establishment of areawide governance mechanisms has been found to be fraught with difficulties. The search for governance approaches for mega-urban regions, therefore, is one of the main concerns of this book.

Finally, this book identifies and analyzes the various lessons learned in solving mega-urban problems through the use of regional planning and governance approaches. As such, it does not confine its attention to the six mega-urban regions covered in the AURN study but also cites relevant examples of planning and governance interventions that have been used in other Asian cities. This broader approach provides a wider comparative perspective. It also enhances the pragmatic nature of this book’s concern—how to cope with problems arising from the rapid growth and expansion of mega-urban regions and to use the development of mega-urban regions as engines of economic growth and social change.

Outline of the Book

This book is composed of ten chapters. Chapter 1 has traced the origins and development of selected mega-urban regions in Asia. It has identified the various types of mega-urban regions and analyzes the historical, economic, political, and social factors that played specific roles in their emergence. The chapter then explained the importance of comprehensive planning and areawide governance not only in making mega-urban regions livable and sustainable but also in enhancing economic and social development at the regional and national levels.

Chapter 2 deals with the planning of mega-urban regions. It analyzes the shift from traditional master planning to comprehensive and strategic plan-
From Mega-Cities to Mega-Urban Regions

... as practiced in various countries. It describes various approaches to planning and how planning concepts and practices have been influenced by historical and cultural events. It covers the role of infrastructure in the planned development of urban areas, especially the process of integrating transportation, water, sewerage, energy supply, and solid waste collection and disposal in the development of regions.

The governance of mega-urban regions is the theme of chapter 3, which analyzes efforts to find appropriate instruments and mechanisms to implement policies and programs in mega-urban regions. The chapter analyzes governmental functions such as policy setting, program development, project formulation, and project implementation, as well as monitoring and evaluation. The advantages and disadvantages of various types of regional governance structures (e.g., federations of local government units, special functional authorities, unified regional governments) are considered. The case is made for the establishment of governance mechanisms that encompass whole mega-urban regions and ensure both the efficient delivery of urban services and public participation in governmental decision making.

Chapter 4 deals with the economic, environmental, and social aspects of sustainability as a concept and how these relate to the growth and development of mega-urban regions. This chapter accepts that mega-urban regions are not very sustainable in their current state. However, it argues that government, the private sector, and civil society may pursue some policies and programs that may help to improve city-regions’ sustainability. Aside from the usual focus on environmental and economic sustainability, special attention is given in this chapter to the development of social sustainability and the role of civil society in city-regions.

Chapter 5 looks into the planning and management of water resources, one of the key elements in the development of mega-urban regions. It describes the problems of water shortages, pollution, and overdependence on groundwater sources and considers various technological and programmatic approaches to deal with these problems. It points to water as an element that naturally takes advantage of the regional nature of resources and proposes a number of planning and management mechanisms to more rationally use scarce water.

Chapter 6 focuses on mobility in urban areas and how transportation can be planned and managed to enhance development in mega-urban regions. It considers transportation not only in its role as a shaper of the mega-urban region’s structure but also as a key element of the region’s economic and social development. The chapter considers the effects and impact of various
transport modes and concludes that in their present stage of development, Asian mega-urban regions will probably benefit the most from mass transit systems.

Chapter 7 is concerned with inner-city redevelopment through programs such as community upgrading, housing, historical conservation, and urban design. It describes efforts in Asia to prevent the deterioration of downtown and to ensure a vibrant inner city. The chapter argues that most Asian mega-urban regions will benefit from redevelopment of inner cities for both regional and national development reasons.

Chapter 8 deals with efforts to develop the urban periphery through programs that include development of small towns, satellite cities, high-technology parks, and special economic zones. Ways to preserve the identities of small towns even as they are engulfed by urban sprawl are analyzed. The chapter also considers the advantages and disadvantages of autonomous development enclaves—such as special economic zones, export-processing zones, and high-technology parks—in developing urban peripheral areas.

Chapter 9 takes an in-depth look at policies that seek to integrate urban poor people in planning and governance through housing and basic urban services programs. The chapter evaluates programs and interventions that seek to make housing accessible to low-income groups in both the inner city and suburban relocation projects. The chapter also deals with other issues, such as housing finance, design, and construction, and it examines unorthodox approaches to housing, such as self-help and mutual aid efforts to operate and maintain housing units.

Finally, chapter 10 poses the theme of the future of Asia's mega-urban regions. On the basis of a historical analysis, it looks at the possible future implications of decentralization, the role of technology (especially information technology), the possible systems of governance, and, of course, the future sustainability of the mega-urban region in an era of globalization.