

Revisiting Urban Planning in East Asia, South-east Asia and the Pacific

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About this report

General Assembly Resolution 34/114 mandated UN-HABITAT to prepare periodically the Global Report on Human Settlements as a vehicle for monitoring and reporting on human settlements conditions and trends. So far, six issues of the Global Report have been published.

The seventh issue of the Global Report on Human Settlements will be devoted to 'Revisiting Urban Planning'. The report will be published in October 2009. It will review urban planning practices and approaches, with a view to identifying the constraints and conflict points therein, as well as to identify innovative, flexible and dynamic approaches that are more responsive to the rapid pace of urbanization and its accompanying challenges. New approaches to planning can only be meaningful, and have a greater chance of succeeding if they are in consonance with the prevailing socioeconomic and cultural milieu, are participatory and inclusive, as well as linked to contextual political processes. The objective of the 2009 Global Report is to improve knowledge, among Governments and Habitat Agenda Partners, on global conditions and trends with respect to urban planning. This regional report will contribute as an input to the preparation of the 2009 Global Report.

There are ten chapters to this regional report on East Asia, South-east Asia and the Pacific. The intention is not to be comprehensive, but to give a sense of the state of urban planning, its context, emergence and practice within the above region. The report is based on desktop review. Data availability is a huge constraint, especially the lack of comparable data. While urbanization and megacities in East Asia and South-east Asia are increasingly being documented, there is less information on urbanization and development in the Pacific. Information on evaluation and monitoring in the planning process, and planning education in the region is also limited. Additionally, the study region covers a very wide spatial and geographic extent. It is a challenge to review the 39 countries of the study region within the project resources and timeframe of one month. The report presents a best effort rather than a detailed investigation.

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List of acronyms

ADB	Asian Development Bank
ASEAN	Association of South-east Asian Nations
ICLEI	International Council for Local Environmental Initiatives
NGO	Non-governmental organization
UNDP	United Nations Development Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNESCO	United Nations Educational, Scientific and Cultural Organization

1. Current Urban Challenges in the Region

This Chapter will give a brief introduction of the study region¹ and its countries. It will also introduce the trends and current urban challenges faced by the region.

1.1. Introduction

The region of East Asia, South-east Asia and Pacific is among the largest regions of the world. The region consists of those countries that lie between the longitudes of 30° east and 120° west, an area stretching from Xinjiang Uyghur Autonomous Region of China in the west to Pitcairn, a Pacific country in the east, and from Heilongjiang province of China in the north to Pitcairn in the south, representing more than 30 per cent of the world's population. The majority (70 per cent) of the region's population lives in the East Asia sub-region, and just under 30 per cent in the South-east Asia sub-region. The islands and seas of the Pacific sub-region, from Papua New Guinea to the tiny atolls of Micronesia and Polynesia, cover more than a third of the globe but have a population of just over 8 million, of which 66 per cent is in Papua New Guinea (Table 1).

The region covers a wide range of diverse and varied country settings in terms of size, history, culture, geography, development and environment. Despite the sparseness of settlement, the countries in the Pacific sub-region are very varied in language, culture and ethnicity with isolated islands and remote mountain ranges emphasizing the diversity. A quarter of the world's languages are spoken in the Pacific sub-region. Papua New Guinea alone has over 800 languages while Vanuatu with over 100 has more language per capita than any other country.

Countries are at various levels of economic development even though all countries in the region, apart from a few exceptions, are developing countries. Economically, the region includes the first generation newly industrializing economies of the Republic of Korea, Hong Kong Special Administrative Region (SAR) of China and Singapore, the second generation of newly industrializing ASEAN-4 countries (Malaysia, Thailand, Indonesia, and the Philippines), the transitional economies of China and Vietnam and the yet to emerge economies of the Pacific sub-region and Mekong area, some of which—for example, Lao People's Democratic Republic (Lao PDR)—are among the poorest in the world.² Hong Kong SAR, China is perhaps the most laissez-faire economy in the world while Democratic People's Republic of Korea (DPRK) is one of the few remaining socialist economies. On average, income per capita in 2004 for the region is at least 30 per cent below the world average of US\$ 8,760 but poverty levels are below world average (see Table 2).

1. The focus of this report is on the region of East Asia, South-east Asia and Pacific rather than individual country. For the purpose of this regional study, the following countries are considered: China; Hong Kong SAR, China; Macau SAR, China; Democratic People's Republic of Korea; Mongolia; Republic of Korea (East Asia); Brunei Darussalam, Cambodia, Democratic Republic of East Timor, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam (South-east Asia); American Samoa, Cook Islands, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, New Caledonia, Niue, Northern Mariana Islands, Palau, Papua New Guinea, Pitcairn, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, Wallis and Futuna Islands (Pacific).

2. World Bank, 2002; UNESCAP/UNDP Joint Poverty Centre, 2003.

Table 1. Population East Asia, South-east Asia and the Pacific (2000–2010)

Country	Population estimates and projections (000)		Country	Population estimates and projections (000)	
	2000	2010		2000	2010
World	6,085,572	6,842,923	Pacific	8,058	9,645
Region	1,879,121	2,037,377	American Samoa	58	72
East Asia	1,352,198	1,436,711	Cook Islands	19	18
China*	1,273,979	1,354,533	Fiji	811	878
DPR Korea	21,862	22,907	French Polynesia	236	274
Hong Kong SAR, China	6,637	7,416	Guam	155	182
Macau SAR, China	444	476	Kiribati	90	109
Mongolia	2,497	2,813	Marshall Islands	52	73
Republic of Korea	46,779	48,566	Micronesia (Federated States)	107	114
South-east Asia	518,865	591,021	Nauru	12	14
Brunei Darussalam	333	414	New Caledonia	215	257
Cambodia	12,744	15,530	Niue	2	2
Indonesia	209,174	235,755	Northern Mariana Islands	70	91
Lao PDR	5,279	6,604	Palau	19	21
Malaysia	22,997	27,532	Papua New Guinea	5,299	6,450
Myanmar	47,724	52,801	Pitcairn	0	0
Philippines	75,766	90,048	Samoa	177	189
Singapore	4,017	4,590	Solomon Islands	419	537
Thailand	61,438	66,785	Tokelau	1	1
Timor-Leste	722	1,244	Tonga	100	103
Vietnam	78,671	89,718	Tuvalu	10	11
			Vanuatu	191	232
			Wallis and Futuna Islands	15	17

* Does not include Hong Kong SAR and Macau SAR.

Source: UN-HABITAT, 2007: 344.

Table 2. Income and poverty in East Asia, South-east Asia and the Pacific

Country	Gross national income per capita PPP (US\$)		Poverty	
	2003	2004	below \$1/day (%)	below \$2/day (%)
World	8,394	8,760	18.9	48.7
Region	...	...	...	...
East Asia sub-region	5,363	5,959	15.6	44.1
South-east Asia sub-region	4,286	4,606	7.4	38.6
Pacific sub-region	...	...	...	...
Melanesia	2,489	2,699	...	...
Micronesia	...	...	...	...
Polynesia	...	...	...	...

... denote no information.

Source: Based on UN-HABITAT, 2007: 342, 344, 371 and 374.

There exist substantial variations in per capita income levels among the countries, ranging from US\$ 1,760 in Solomon Islands and US\$ 1,850 in Lao PDR to US\$ 31,510 in Hong Kong SAR (Table 3). Newly industrialized countries such as the Republic of Korea and Singapore are in the high income group of countries as classified by the World Bank whereas many countries—such as Mongolia, Cambodia, Lao PDR, Myanmar, Timor-Leste, Papua New Guinea, and Solomon Islands—are classified as low-income economies. Two out of the six countries in the East Asia sub-region, five out of the 11 in the South-east Asia region, and two out of the 22 countries in the Pacific sub-region are classified as low-income economies.

Table 3. World Bank classification of economies in East Asia, South-east Asia and the Pacific

Country	Gross national income PPP		High income	Upper-middle income	Lower-middle income	Low income
	\$/capita 2003	\$/capita 2004				
World	8,394	8,760				
East Asia						
China	4,990	5,530			√	
DPR Korea	...	...				√
Hong Kong SAR, China	28,810	31,510	√			
Macau SAR, China	...	21,880	√			
Mongolia	1,800	2,020				√
Republic of Korea	17,930	20,400	√			
South-east Asia						
Brunei Darussalam	...	...	√	
Cambodia	2,060	2,180				√
Indonesia	3,210	3,460			√	
Lao PDR	1,730	1,850				√
Malaysia	8,940	9,630		√		
Myanmar	...	...				√
Philippines	4,640	4,890			√	
Singapore	24,180	26,590	√			
Thailand	7,450	8,020			√	
Timor-Leste	...	...				√
Vietnam	2,490	2,700				√
Pacific						
American Samoa	...	...		√
Cook Islands	...	...		
Fiji	...	5,770			√	
French Polynesia	...	...	√	
Guam	...	...	√	
Kiribati	...	...			√
Marshall Islands	...	...			√
Micronesia (Federated States of)	...	...			√
Nauru	...	...		
New Caledonia	...	...	√	
Niue	...	...		

Country	Gross national income PPP		High income	Upper-middle income	Lower-middle income	Low income
	\$/capita 2003	\$/capita 2004				
Northern Mariana Islands				√		
Palau		√		
Papua New Guinea	2,240	2,300				√
Pitcairn				
Samoa			√	
Solomon Islands	...	1,760				√
Tokelau				
Tonga	...	7,220			√	
Tuvalu				
Vanuatu	...	2,790			√	
Wallis and Futuna Islands				

... denote no information.

Note: The World Bank classifies all member economies and all other economies with population of more than 30,000. In World Bank (2005a) economies are divided among income groups according to 2004 GNI per capita, calculated using the World Bank Atlas method.

Source: UN-HABITAT, 2007: 330–331.

1.2. Current urban challenges

Rapid economic growth and globalization. Over the last few decades, many countries in the region, especially those in the East Asia (except for DPR Korea) and the South-east Asia sub-regions, are rapidly emerging as engines of global growth. Out of the 10 fastest growing countries in the world, three (China, Macau SAR and Timor-Leste) are in the region. However, economic growth of the countries in the region varies widely (Table 4). Most of this economic growth has been dominated by China, yet significant growth is occurring in other parts of East Asia and South-east sub-regions. Timor-Leste has recorded the highest GDP growth rate following reconstruction in the post-conflict period. High GDP growth of more than 5 per cent has been registered in Vanuatu, Niue, Samoa, Palau and French Polynesia in the Pacific sub-region. Fiji is the only country in the region with negative economic growth, due to coups and unstable government.

Economic performance is expected to remain strong in 2008.³ Several factors may, however, undermine the stability and sustainability of economic growth. Firstly, as these nations become increasingly integrated with global financial markets, their economic performance inevitably will become more affected by global economic outlook unless measures are taken to strengthen local economy and ‘uncouple’ from the global economy. As with the rest of the world, one current issue is the rising oil prices and its potential impact on the region’s economic growth. Collectively, some countries have sought regional integration to stay globally competitive, for example, the Association of South-east Asian Nations (ASEAN). Secondly, the region has serious skills shortages prevalent enough to present a genuine risk to the region’s long-run growth.⁴ There is a shortage of qualified workers and trained profes-

3. UNESCAP, 2007a.

4. ADB, 2008a: 61.

sionals and specialists, in part due to brain drain,⁵ and in part to inadequate manpower development, raising demand on the region's universities and education systems to match up to the emerging needs required by rapidly modernizing economies.

Table 4. Gross domestic product growth rates

Country	GDP growth rate (%)	Year	Country	GDP growth rate (%)	Year
East Asia sub-region			Pacific sub-region		
China **	11.4	2007*	American Samoa	3.0	2003
DPR Korea	1.6	2006*	Cook Islands	0.1	2005*
Hong Kong SAR, China	5.8	2007*	Fiji	-3.1	2007*
Macau SAR, China	16.6	2005	French Polynesia	5.1	2002
Mongolia	8.4	2006*	Guam	...	...
Republic of Korea	4.8	2007*	Kiribati	0.3	2005
			Marshall Islands	3.5	2007*
			Micronesia (Fed. States)	0.3	2005*
			Nauru	...	...
South-east Asia sub-region			New Caledonia	...	...
Brunei Darussalam	0.4	2005*	Niue	6.2	2003*
Cambodia	9.1	2007*	Northern Mariana Islands	...	...
Indonesia	6.1	2007*	Palau	5.5	2005*
Lao PDR	7.0	2007*	Papua New Guinea	4.0	2007*
Malaysia	5.7	2007*	Pitcairn	...	...
Myanmar	3.5	2007*	Samoa	5.5	2005*
Philippines	7.3	2007*	Solomon Islands	4.4	2005*
Singapore	7.4	2007*	Tokelau	...	...
Thailand	4.3	2007*	Tonga	2.4	2005*
Timor-Leste	24.0	2007*	Tuvalu	1.2	2002*
Vietnam	8.5	2007*	Vanuatu	6.8	2005*
			Wallis and Futuna Islands	...	...

... denote no information.

* Estimate

** Does not include Hong Kong SAR and Macau SAR.

Source: CIA, not dated.

Thirdly, natural disasters and conflicts are other constraints to growth. Lao PDR, Cambodia, Timor-Leste, Fiji, Papua New Guinea and Solomon Islands are some of those countries that have recently started to recover from war, civil strife and natural disasters. Countries in the Pacific sub-region are among the most vulnerable in the world to natural disasters.⁶ Natural disasters include cyclones, earthquakes, floods, droughts and tsunamis. These do not just result in loss of life and destruction of homes, infrastructure and livelihoods but also create chronic shocks to the countries' economies. As the damage effects normally extend beyond the year of the disaster, estimates suggest an average annual damage of 2 to 7 per cent of GDP, in both disaster and non-disaster years. Past disaster statistics indicate a similar picture in countries of East Asia and South-east Asia sub-regions,⁷ resulting in severe damage and loss of life (see Tables 5, 6 and 7).

5. This is a common problem of many developing countries where they lose their well educated and highly skilled to industrial countries. See ADB (2008a) for more details.

6. Bettencourt et al, 2006.

7. ADRC, 2005.

Table 5. Major disaster incidents, number of events (1980–2000), selected countries

Country	Annual average number of events			
	Cyclones	Droughts	Earthquakes*	Floods
China **	6.9	0.86	2.1	5.57
DPR Korea	...	0.1	...	0.29
Republic of Korea	1	...	...	0.71
Cambodia	...	...	...	0.29
Indonesia	...	0.29	1.62	2.48
Lao PDR	0.19	...	...	0.43
Malaysia	0.1	...	...	0.43
Myanmar	...	...	...	0.29
Philippines	5.57	0.24	0.57	1.76
Thailand	0.71	...	...	1.33
Vietnam	2.24	...	...	1.00
Fiji	0.67	...	...	0.14
Papua New Guinea	0.1	0.14	0.33	0.24

... denote no information.

* Events equal or greater than a magnitude of 5.5 on the Richter scale.

** Does not include Hong Kong SAR and Macau SAR.

Source: UN-HABITAT, 2007: 369.

In the recent Nargis cyclone (2 May 2008), winds exceeding 190 km per hour swept through Myanmar's biggest city, Rangoon, for more than ten hours, flattening homes, uprooting trees and destroying power lines. It is a situation that the country had not dealt with before. Similarly, the earthquake (12 May 2008) in Sichuan province, China, destroyed thousands of buildings, left 69,000 dead, more than 370,000 people injured, 17,000 missing, and 4.8 million homeless. Tremors were experienced in Hong Kong SAR, Macau SAR,

Table 6. Major disaster incidents, loss of lives (1980–2000), selected countries

Country	Cyclones		Droughts		Earthquakes*		Floods	
	Annual average	Per million	Annual average	Per million	Annual average	Per million	Annual average	Per million
China **	428.38	0.37	161.9	0.14	92.24	0.08	1490.57	1.32
DPR Korea	...	...	12,857.14	579.43	...	...	28.14	1.35
Republic of Korea	71.52	1.67	...	...	...	...	51.95	1.19
Cambodia	...	...	...	...	...	...	48.52	4.08
Indonesia	...	...	60.29	0.34	193.24	1.04	120.29	0.67
Lao PDR	2.67	0.6	...	...	...	...	3.29	0.75
Malaysia	12.86	0.6	...	...	...	...	4.43	0.24
Myanmar	...	...	...	...	...	...	9.05	0.20
Philippines	863.19	14.35	0.38	0.01	120.57	2.03	75.71	1.22
Thailand	30.24	0.54	...	...	...	...	78.52	1.37
Vietnam	435.24	6.4	...	...	...	...	137.90	1.98
Fiji	5.71	7.99	...	...	...	...	1.57	2.10
Papua New Guinea	2.24	0.52	4.67	1.16	3.1	0.83	2.76	0.72

... denote no information.

* Events equal or greater than a magnitude of 5.5 on the Richter scale.

** Does not include Hong Kong SAR and Macau SAR.

Source: UN-HABITAT, 2007: 369.



Figure 1. Heavy rain has triggered flooding in some cities

Vietnam, Mongolia and Thailand. Managing the risks associated with natural hazards and disasters, responding to disasters and post-disaster reconstruction are major development problems in cities of highly vulnerable countries. Weak institutions and a lack of enabling environment to comprehensively deal with this problem adds to the challenge. To make matters worse, disasters often have disproportionate impacts on the poor. This challenge is expected to intensify as the rate of climate change accelerates in the future.⁸ In some countries of the Pacific sub-region, the mean sea level is estimated to be rising by approximately 25 mm per decade.⁹

Over the past few decades, increases in foreign direct investment have been a major factor of the region's rapid and sustained economic growth.¹⁰ Despite the Asian financial crisis 1997/1998, globalization-driven growth continues apace.¹¹ As Table 8 indicates, with

Table 7. Population affected by conflicts (1980–2000), selected countries

Country	Annual average number of affected people
China	0
DPR Korea	0
Republic of Korea	0
Cambodia	75.0
Indonesia	1.0
Lao PDR	6.0
Malaysia	0
Myanmar	74.0
Philippines	100.0
Thailand	11.0
Vietnam	10.0
Fiji	0

Source: UN-HABITAT, 2007: 369.

8. UNU, 2004; Bettencourt et al, 2006.

9. ADB, 2006.

10. World Bank, 1993; Lo and Marcotullio, 2000.

11. UNESCAP, 2007a; ADB, 2008a.

Table 8. Per capita foreign direct investment

Country	Per capita foreign direct investment				
	1990–2000 (annual average)	2003	2004	2005	2006
World	87	89	116	146	200
Region*	39	50	72	80	86
East Asia sub-region	36	52	75	82	84
China**	25	41	46	55	53
Hong Kong SAR, China	2,243	1,983	4,898	4,784	6,037
Macau SAR, China	-2	906	1,060	2,874	1,595
Mongolia	8	51	35	69	62
Republic of Korea	68	93	189	148	103
South-east Asia sub-region	46	45	64	74	92
Brunei Darussalam	1,183	9,446	914	774	1,137
Cambodia	14	6	9	27	34
Indonesia	8	-3	9	37	25
Lao PDR	11	3	3	5	31
Malaysia	231	102	186	157	236
Myanmar	8	6	5	5	3
Philippines	19	6	8	22	28
Singapore	2,617	2,785	4,670	3,486	5,551
Thailand	55	83	92	140	151
Vietnam	18	18	19	24	27
Pacific sub-region	48	19	20	9	26
Fiji	57	31	112	-5	121
Kiribati	160	167	195	10	118
Papua New Guinea	53	18	5	6	5
Samoa	30	6	11	-22	-11
Solomon Islands	22	-4	13	40	39
Tonga	21	30	49	167	108
Vanuatu	141	74	87	61	283

* Data for those countries not listed are not available.

** Does not include Hong Kong SAR and Macau SAR.

Source: UNCTAD, 2007; Population data are computed based on UN-HABITAT, 2007: 344.

few exceptions, per capita foreign direct investment is growing. According to A.T. Kearney/Foreign Policy Magazine,¹² Singapore is the most globalized country in the world for year 2006.¹³

The impact of globalization is not just growing economies but also changing societies. Economic growth has brought changes in income levels. There is an emerging middle class, who are more widely travelled and exposed to international tastes. This, in turn, is bringing

12. 16 October 2006.

13. The Globalization Index of A.T. Kearney/Foreign Policy magazine tracks and assesses changes in four key components of global integration, incorporating measures such as trade and investment flows, movement of people across borders, volumes of international telephone traffic, Internet usage, and participation in international organizations. Major regions of the world, including developed and developing countries are covered to provide a comprehensive and comparative view of global integration.

changes to consumption pattern. In some cases—particularly in the newly rich countries like China—the growing affluence is resulting in an increased demand for private cars, air conditioning units and new forms of housing and retail spaces in the city. More offices and related building complexes, and communications and transport infrastructure network have been built to serve global needs, and connect the local and the global. There are new migration movements, not just rural-urban but international, transforming demographic structures and influencing identity. In tandem with technological advancement, globalization has paved the way for the growth in international call centres,¹⁴ fast food chains, cheap flights, 24/7 news culture and internet usage, and has had a pervasive influence on trends in work, fashion, sport and entertainment, and culture across the region.¹⁵

Especially in the larger cities, globalization has induced more pro-growth development, and greater public-private partnership to keep pace with inter-urban competitive processes brought on by globalization.¹⁶ This, in turn, is changing the attitude of urban government, from a managerial approach to entrepreneurialism where city marketing and image are seen to be of increasing importance. These global injections have led to the restructuring of urban spaces, most prominently, the construction of some of the world’s tallest buildings (see Table 31) and mega-projects of shopping complexes and upscale housing to add distinction to the city even as the rest of the city may be largely living in slums and lacking in public services (see Chapter 8). This has given rise to some fundamental challenges of how to manage the increasing globalization of cities, how to coordinate modernity and traditionalism, globalization and the vernacular, especially when the latter is often faced with the problems of the poor. Economic growth while advancing development and changing income levels has not eradicated poverty in the region.¹⁷

As with the rest of the world, economic growth in East Asia, South-east Asia and Pacific region is largely concentrated in urban areas. In almost all countries, urban GDP accounts for the major share of national GDP (Table 9). Cities, especially bigger cities are the loci of growth. They are also the places of the most important impacts of globalization, making cities the places of change and expectations of the future. The inter-relationship between economic growth and urbanization, and the resultant pace and scale of change of cities has generated considerable challenges. Urbanization both reflects, and contributes to, economic growth.

Table 9. Estimated GDP of urban areas

Country	Estimated urban GDP share in national GDP (%)				
	1990	1995	2000	2005	2006
World	94.5	95.0	95.2	95.1	94.9
East Asia sub-region					
China	73.1	80.2	85.2	87.4	87.2
DPR Korea	72.6	72.4	69.6	71.9	72.7
Hong Kong SAR, China	99.8	99.9	99.9	99.9	99.9
Macau SAR, China	100.0	100.0	100.0	100.0	100.0
Mongolia	84.8	62.4	67.3	78.3	79.0
Republic of Korea	91.1	93.7	95.1	96.7	96.8

14. Forrester Research estimated that 3.3 million service industry jobs including call centres and US\$ 136 billion in wages will move to countries like China and the Philippines, see CBS News, 2003.

15. See Lo, 1994; Bernard and Ravenhill, 1995; Dick and Rimmer, 1998.

16. Chang, 1998; Chia, 2001.

17. United Nations (2006); World Bank, 2005a; Abbott and Pollard, 2004.

Country	Estimated urban GDP share in national GDP (%)				
	1990	1995	2000	2005	2006
South-east Asia sub-region					
Brunei Darussalam	97.7	97.5	99.0	99.1	98.9
Cambodia	49.9	48.6	62.1	65.8	70.4
Indonesia	83.4	85.4	85.1	87.2	86.3
Lao PDR	38.8	45.0	47.4	55.2	53.2
Malaysia	85.0	87.3	91.6	91.7	91.2
Myanmar	42.7	40.0	42.8	46.9	47.4
Philippines	78.1	78.4	84.0	85.7	85.8
Singapore	99.7	99.9	99.9	99.9	99.9
Thailand	85.6	89.2	91.0	89.8	89.3
Timor-Leste	70.5	70.6	74.2	68.2	67.8
Vietnam	61.3	72.8	75.5	79.1	78.3
Pacific sub-region					
American Samoa	...	...	...	...	...
Cook Islands	88.4	90.3	87.0	87.5	86.4
Fiji	81.3	81.2	83.5	86.3	85.9
French Polynesia	95.5	95.9	96.0	96.6	96.5
Guam	...	...	...	...	...
Kiribati	81.4	79.7	85.3	89.9	90.3
Marshall Islands	86.1	85.1	90.0	90.0	89.9
Micronesia (Federated States of)	80.8	80.8	80.8	80.8	80.8
Nauru	81.4	79.7	85.3	89.9	90.3
New Caledonia	98.0	98.2	97.6	97.6	97.5
Niue	...	...	...	...	...
Northern Mariana Islands	...	...	...	...	...
Palau	74.1	94.1	95.9	96.7	96.4
Papua New Guinea	70.3	64.9	68.3	61.8	60.5
Samoa	79.5	81.6	83.5	87.1	87.0
Solomon Islands	54.5	55.3	55.5	55.5	55.5
Tonga	64.9	76.3	71.4	72.1	71.9
Tuvalu	74.4	76.0	82.7	83.5	83.3
Vanuatu	80.0	84.4	85.1	85.5	85.6

... denote no information. Information not available for countries not listed.

Note: Urban GDP estimates are assumed to be the sum of GDPs for industrial and services sectors.

Source: UNESCAP, 2007b.

Rapid population and urban growth. Demographically—with a population of about two billion—the region contains over 30 per cent of the world’s total population, and about 27 per cent of global urban population (Table 1). The bulk of the population (78 per cent) is concentrated in China (1.3 billion) and Indonesia (210 million). The sub-regional pattern of demographic distribution indicates that 94 per cent of the population in East Asia sub-region is in China while two out of every three Pacific Islanders lives in Papua New Guinea.¹⁸ The demographic distribution of the South-east Asia sub-region is more uniform, although 40 per cent of this sub-region’s population is residing in Indonesia.

18. Haberkorn, 2004; Webster, 2004.



Figure 2. Growing population, the youth bulge and ageing population, is a challenge for cities

In recent years, all three sub-regions—while at various stages of the demographic transition—have experienced significant increases in population.¹⁹ Decline in fertility and mortality rates since 1950 has produced a large and rising working-age population—the ‘youth bulge’ defined as aged 15–24 or potential ‘demographic dividend’²⁰—across the region which is expected to peak in 2010–2025. In the East Asia sub-region, the youth bulge is expected to peak at 72 per cent in 2010 up from 57 per cent in the 1970s. The ‘youth bulge’ brings economic and social challenges to the city.

Economically, jobs have to be found for these people. Youth joblessness is a ubiquitous feature of the region’s labour markets.²¹ On a global and regional scale, countries in the Pacific sub-region have a large and growing number of youth; many are unemployed or under-employed.²² The large majority of young workers end up in the informal sector with low wages and miserable working conditions. Some end up in gangs and criminal activities.²³ Looking ahead, the prospect of a transition toward ageing population, which will begin in China within the next few years and already well under way in parts of East Asia and South-east Asia sub-regions, will reverse the ‘demographic bonus’ to ‘demographic dearth’.²⁴ The ageing population will bring a different set of needs and challenge to the city. At the economic level, this will increase the existing skills shortage problem in the region. In terms of urban planning, the implication is more age-friendly built environment.

On a spatial dimension, an increasing proportion of the region’s population is gravitating towards the urban areas.²⁵ Although the region is among the world’s least urbanized areas, it

19. UNESCAP, 2007a.
20. Lee and Mason, 2006.
21. ADB, 2008a; ILO, 2006.
22. World Bank, 2006.
23. UN-HABITAT, 2007.
24. UNESCAP, 2006.
25. United Nations, 2004a.

Table 10. Population and urbanization, East Asia, South-east Asia and the Pacific

Region	Total population			Level of urbanization		
	Estimates and projections (000)		Rate of change 2000–2030 (%)	Estimates and projections (000)		Rate of change 2000–2030 (%)
	2000	2030		2000	2030	
World	6,085,572	8,199,104	0.99	46.7	59.9	0.83
Region	1,879,125	2,246,111	0.60	38.4	61.3	1.57
East Asia sub-region	1,352,199	1,532,511	0.42	38.1	61.6	1.61
South-east Asia sub-region	518,867	700,930	1.00	39.6	61.2	1.45
Pacific sub-region	8,059	12,670	1.52	23.8	32.1	1.00
Melanesia	6,935	11,142	1.58	19.2	27.6	1.21
Micronesia	505	757	1.35	65.7	76.6	0.51
Polynesia	619	771	0.73	41.1	53.2	0.85

Region	Urban population			Rural population		
	Estimates and projections (000)		Rate of change 2000–2030 (%)	Estimates and projections (000)		Rate of change 2000–2030 (%)
	2000	2030		2000	2030	
World	2,844,802	4,912,553	1.82	3,240,771	3,286,551	0.05
Region	722,236	1,376,770	2.17	1,156,888	869,339	-0.95
East Asia sub-region	514,696	944,077	2.04	837,502	588,434	-1.17
South-east Asia sub-region	205,621	428,630	2.45	313,246	272,299	-0.47
Pacific sub-region	1,919	4,063	2.53	6,140	8,606	1.13
Melanesia	1,332	3,073	2.79	5,603	8,068	1.22
Micronesia	332	580	1.86	173	177	0.07
Polynesia	255	410	1.59	364	361	-0.03

Source: UN-HABITAT, 2007: 337 and 348.

has a fast growing urban population (Table 10). The urban population is expected to almost double between 2000 and 2030. Cities are becoming larger. A common phenomenon is primate cities, and some are growing to megacities, attracting a disproportionate amount of national provision of services, and resulting in the concentration of investment and resources in a few major cities.

The driving forces of urban growth and the urban context are discussed in Chapter 2. In general, urbanization is affected by job availability; the more rapid a country's economic growth, the faster it urbanizes. Economic growth, in particular, job prospect has encouraged rural-urban migration, and contributed to the growth of primate cities, megacities and peri-urbanization. Without exception, the rising number of people in urban areas on a scale never before experienced has led to pervasive slums and squatter areas, and sprawling peri-urban development, especially when there is no matching capacity to govern the city and ensure that the growing population and economic activities can get the land, infrastructure and services they need.²⁶

26. UN-HABITAT, 2003a.

Table 11. Urban slum dwellers, East Asia and South-east Asia

Country	Urban slum dwellers							
	Estimates and projections (000)				% of urban population		Slum projection	Target 11 (000)
	1990	2001	2020	2020	1990	2001	2010	2020
World	714,972	912,918	1,115,002	1,392,416	...	31.6	1,070,494	1,292,065
China*	137,929	178,256	219,878	277,616	43.6	37.8	211,141	257,793
DPR Korea	117	95	80	67	...	...	77	60
Hong Kong SAR, China	113	139	163	196	...	...	156	181
Macau SAR, China	7	9	10	12	...	...	10	11
Mongolia	866	940	1,006	1,084	68.5	64.9	963	995
Republic of Korea	11,728	14,385	17,002	20,470	37.0	37.0	16,313	18,948
Brunei Darussalam	3	5	7	9	...	...	6	9
Cambodia	870	1,696	2,929	5,375	71.7	72.2	2,829	5,089
Indonesia	17,964	20,877	23,608	27,064	32.2	23.1	22,632	24,965
Lao PDR	422	705	1,073	1,711	...	...	1,034	1,610
Malaysia	177	262	361	515	50.0	50.0	347	482
Myanmar	3,105	3,596	4,056	4,635	31.1	26.4	3,888	4,275
Philippines	16,346	20,183	23,984	29,053	54.9	44.1	23,015	26,904
Singapore	-	-	-	-	...	...	...	...
Thailand	1,988	253	47	7	19.5	2.0	42	2
Timor-Leste	1	7	28	140	...	...	28	136
Vietnam	8,100	9,197	10,204	11,453	60.5	47.4	9,779	10,548

Note: Equivalent data for Pacific sub-region is not available.

... denote no information.

* Does not include Hong Kong SAR and Macau SAR.

Source: UN-HABITAT, 2007: 352.

The speed and scale of population and urban growth create many urban challenges, requiring cities to plan and implement provision at an unprecedented level, and effectively manage the risks to the environment.

Housing. A first challenge is how to accommodate the fast growing urban population. Policy, planning and regulation deficiencies have led to deficiencies in land supply and growth in informal settlements (see Chapter 7). Weak finances of urban local authorities have left many unable to expand the housing supply. Poor access to micro finance and mortgage finance has limited the ability of low-income groups to buy or improve their homes, resulting in many living in slums. With few exceptions, the number of slum dwellers has grown, and is rising in East Asia and South-east Asia sub-regions (Table 11).

Poverty. Even though there is a growing middle class, poverty remains an issue in the region. While the region has a lower poverty level than the world average (Table 2), countries in the region varies widely in poverty level (Table 12). Cambodia, Lao PDR and Mongolia are among the poorest countries, and have a significant portion (more than 70 per cent) of their population living under the international poverty line. In Fiji, the only country in the region with a declining economy, urban poverty was estimated at 28 per cent of the population in 1997 and has since increased to 33 to 35 per cent in 2006. Elsewhere in the Pacific sub-



Figure 3. Self-built housing adds to the slum and squatter settlement of large cities

region, in Kiribati and Vanuatu, more than half of the urban population is considered to be poor.²⁷ Many of the poor are women. Unemployment or under-employment is common. A large proportion of the urban poor are forced to live in sub-standard, unhealthy conditions in the absence of affordable housing and basic services. Uncertain and unclear land tenure system further contributes to the insecurity and other difficulties of the poor. The overall shortage of urban housing has fuelled the growth of informal settlements. In many cases, the poor lack access to the urban environment that other residents enjoy: security, basic housing and acceptable living conditions, public transport, etc. The living condition of the urban poor is a major urban development challenge across the region.

Infrastructure and service delivery. Again, weak finances of urban local authorities have left many without the capacity to renew and expand urban infrastructure to meet growing need. Urbanization is adding more people to the region's cities every year, requiring not just new housing but also new roads and additional infrastructure to supply schools, clinics, sanitation and water. In urban areas, more than 500 million people lack access to improved water while over 600 million people lack access to basic sanitation.²⁸ In many cases, the lack of infrastructure has aggravated environmental problems, which in turn further hampers service delivery. Take solid waste disposal as an example. The lack of proper solid waste disposal has resulted in dumping into waterways and open spaces. Improper treatment of waste and sewage is a common problem that contributes to the contamination of water sources, leading to a vicious cycle of water shortage. Infrastructure provision remains a challenge in the region as cities seek to plan for and manage:²⁹

- Inadequate access to safe drinking water and sanitation, and associated health impacts of diseases, including faecal-oral and water-related insect vector, and social impacts of reinforcing inequality and vulnerability;

27. UNESCAP, 2007a.

28. UN-HABITAT, 2003b.

29. Roberts and Kanaley, 2006, p33; UN News Center, 2006.

Table 12. Poverty and inequality, selected countries

Country	Inequality				National poverty line			
	Year	Income/ consumption Gini index	Land Gini index		Year	Rural %	Urban %	Total %
China	2001 c	0.45	...		1996	7.9	<2	6.0
Mongolia	1998 c	0.30	...		1995	33.1	38.5	36.3
Republic of Korea	1998 y	0.32	1990	0.34		...	...	...
Cambodia	1997 c	0.40	...		1997	40.1	21.1	36.1
Indonesia	2000 c	0.34	1993	0.46	1996	...	...	15.7
Lao PDR	1998 c	0.35	1999	0.39	1993	48.7	33.1	45.0
Malaysia	1997 y	0.49	...		1989	...	...	15.5
Philippines	2000 c	0.46	1991	0.55	1994	53.1	28.0	40.6
Singapore	1998 y	0.43	...			...	...	...
Thailand	2002 c	0.40	1993	0.47	1990	...	...	18.0
Timor-Leste	2001 c	0.37	...			...	...	...
Vietnam	2002 c	0.35	1994	0.53	1998	45.5	9.2	37.4
Papua New Guinea		...	...		1996	41.3	16.1	37.5

Country	International poverty line						
	Year	Rural %	Urban %	Total %	Year	Below \$1/day %	Below \$2/day %
China	1998	4.6	<2	4.6	2001	16.6	46.7
Mongolia	1998	32.6	39.4	35.6	1998	27.0	74.9
Republic of Korea		...	...	...	2002	<2	<2
Cambodia	1999	40.1	13.9	35.9	1997	34.1	77.7
Indonesia	1999	...	...	27.1	2002	7.5	52.4
Lao PDR	1998	41.0	26.9	38.6	1998	26.3	73.2
Malaysia		...	...	...	1997	<2	9.3
Philippines	1997	50.7	21.5	36.8	2000	15.5	47.5
Thailand	1992	15.5	10.2	13.1	2000	<2	32.5
Vietnam	2002	35.6	6.6	28.9		...	...

Note: Gini index: 'c' indicates that data refer to consumption inequality. 'y' indicates that data refer to income inequality. No data is available for those countries not listed.

... denote no information.

Source: UN-HABITAT, 2007: 374.

- Inadequate solid waste collection and management, and their impact on blocked drains, flooding, and in some cases, leaching of toxic chemicals;
- Inadequate drainage of low-lying areas, and their impact on flooding; and
- Endemic traffic congestion.



Figure 4. Infrastructure is needed for new population in urban and rural areas

As discussed in Chapter 8, the issue is not just the building of new infrastructure but also to improve the performance of existing provision such as reducing water losses and inefficiencies, which may account for as much as 50 per cent of the quantity supplied in some cases.³⁰

Environment. Environmental degradation is a major challenge in the region. Rapid urbanization and industrialization are causing severe air, water and other pollution problems in many cities. The resultant health and economic effects of pollution cost cities billions of dollars a year.³¹ The region is highly dependent on fossil fuels. By 2025 (if not before), China will become the world's largest emitter of greenhouse gases.³² Air pollution from industry and vehicles, and from burning coal and biomass for domestic cooking and heating are causing respiratory and other health problems. Waterways are increasingly becoming polluted by domestic and industrial effluents with minimal or no treatment.³³ The United Nations Environment Programme has ranked Jakarta (Indonesia) and Bangkok (Thailand) as among the world's most polluted mega-cities.

In all three sub-regions, institutional responsibilities for urban environmental management are often unclear and weak, especially over problems of cross-boundary pollution.³⁴ Besides weak governance, the other contributing factors include economic development and new lifestyles, which, as stated above, has seen an explosion in the demand for private cars and energy consumption, generating enormous quantities of waste to be treated or disposed of. The by-products of consumerism are putting enormous strain on the environment. A common problem faced by many developing countries across the region is the depletion of natural resources. Forest cover is shrinking rapidly,³⁵ undermining wildlife, plant diversity

30. Le and Facon, 2001.

31. World Bank, 1992.

32. ADB, 2008b.

33. Republic of Indonesia, 2003.

34. UN-HABITAT, 2003b; von Einsiedel, 2004.

35. Lohani et al, 1997; World Bank, 2005b.



Figure 5. Illegal and indiscriminate dumping adds to the city's environmental challenge

and livelihoods. Forests are commonly converted to cropland, paddy and pasture to respond to growing population and urbanization needs or lost through illegal logging. Climate change, major drought and flooding are refocusing attention on the environment. Sustainable development remains a critical urban challenge even though more countries are recognizing and respecting the symbiotic relationship between environment, economic and urban growth (see Chapter 6).

Planning. Planning for and managing the impact and consequences of the rapid population and urban growth is a common challenge facing cities in this region. It includes all of the above social and economic elements such as housing, poverty reduction, employment, health and welfare, education, community infrastructure, transportation, and so forth. Urban planning is indispensable for coordinating urban development. Unless urban development is comprehensively planned for and all its constituent elements addressed as equally necessary parts of the solution, a series of temporary patch-ups, and worse, no action is the more likely outcome. The proliferation of slums seems to indicate that the existing planning system is failing to deliver its promise of orderly development. As discussed in Chapter 3, many urban governments lack a modern and strong planning framework. Formal strategic and spatial planning for urban development and growth is frequently not well provided for in either central or local government administration. These administrations often lack the power and organization to fully enforce building codes, environmental controls, and plans.

Integrated planning is made difficult with a number of jurisdictions having responsibility for different parts of the city, and policies sometimes being at odds with one another. Compounding matters, urban planning is a new and recent experience where capacity development is often inadequate. As cities grow and evolve, as they become larger with their appendages of peri-urban areas, the task of managing them becomes ever more complex, especially when many of the largest urban areas have administrative and planning boundaries that have little relationship to functioning cities. With few exceptions, effective urban planning remains a key challenge in cities across the region.

Urban governance. Political will, transparency, funding and capacity to support planning and implementation are some of the key issues in urban governance. Meeting the

urban challenge requires good governance. With few exceptions, the capacity of local and national government across the region is weak and fragmented, management skills are in short supply and budgeting procedures are not designed for sustained programs of infrastructure and urban development investment.³⁶ Several countries have a highly centralized, top down administration though economic reforms and globalization have induced changes, especially among the transitional economies (Table 13). In addition to increasing entrepreneurialism, there is an emerging trend towards decentralization and greater popular participation.³⁷ The motivations for decentralization have been diverse, and decentralization reforms have been introduced across different countries and regimes, from military dictatorship, authoritarian presidency and monarchy through single-party or dominant-party system to multi-party competitive democracy.

Table 13. Decentralization of governance

Country	Status of decentralization
China	Economic reform rather than specific policies to devolve power has shaped China's decentralization effort. During the last two decades, China has moved from a largely de-concentrated system to one that incorporates elements of delegation and devolution. Sub-national governments have become more responsible for financing their expanding functions from their own revenue, both formal and informal, giving them more autonomy, except in sectors with mandated service standards. As economic reform progressed, the burden of public spending has shifted to sub-national governments. These adjustments have led to further modifications of government operations, but the country never adopted a formal decentralization policy. Public demand for more responsive government and greater entrepreneurial freedom has also shaped the relations between the central and sub-national governments, but formal reforms in this area have been limited.
DPR Korea	Centrally planned communist system is preserved.
Mongolia	Decentralization in general and fiscal decentralization in specific followed a top-down approach, being implemented only slowly and without any integrated decentralization strategy. So far, decentralization has remained incomplete.
Republic of Korea	Highly centralized administration. Decentralization is limited though the 1948 constitution has guaranteed local autonomy. The Local Autonomy Act was enacted for the introduction of local autonomy in 1949. Currently, local councils are elected by residents but decentralization is incomplete because of excessive central authority, imbalanced central and local fiscal, restricted local autonomy and ineffective local legislations.
Cambodia	Decentralization prompted by UNDP in the early 1990s, which evolved into the Seila program, and helped build a system of local planning for development projects. Reforms adopted in 2001 led to the election of commune councils, which focused on meeting immediate community needs and developing trust between citizens and the government as a first step in decentralization. Provincial reforms have been limited, except for the adaptation of parts of the Seila program, which helped provide provincial support to communes. A program to build capacity is under way, and the country is planning further reforms. But it is unclear how the system will evolve.

36. UN-HABITAT, 2003b.

37. United Nations, 2004b; Brillantes, 2004.

Country	Status of decentralization
Indonesia	Decentralization legislation was passed in 1999 (implemented 2001) that bypassed provincial governments and devolved power primarily to sub-provincial governments (leaders feared that empowered provinces could fuel regional and ethnic strife, and lead to greater separatism). The government revised its decentralization framework in 2004, leaving several key issues unresolved. Local capacity is deficient in many areas. The evolving democratic environment is a work in progress for citizens and government officials alike.
Lao PDR	Highly centralized administration. Decentralization has progressed with help from UNDP. The Law on Local Administration was approved by National Assembly in October 2003.
Malaysia	Most powers and responsibilities are still in the hands of the national government though considerably de-concentrated administrative functions are given to the local government. Both national and local governments have roles and responsibilities on urban planning.
Myanmar	Highly centralized administration.
Philippines	Having the strongest history of democratic decentralization in the region, the country's new 1987 Constitution embraced decentralization and local autonomy. In 1991, the country's Local Government Code mandated significant devolution to local governments. Today, the country's decentralization framework is essentially complete, but implementation is still lacking.
Thailand	Decentralization has been a priority only since the 1990s, which emphasized developing local infrastructure, providing credit to expand and improve local services, and helping local authorities mobilize capital and pursue development projects. The 1997 Constitution formally enshrined decentralization, and later legislation detailed how it would work. The country has formally adopted many reforms but implemented few of them, and political consensus on further progress remains unclear. Local governments prepare and execute their own budgets, but they are subject to central direction on personnel expenses. A significant share of local expenditures is centrally mandated, with the largest portion devoted to personnel expenses (representing 30 percent of local budgets, on average). Major reforms, however, are intended to eventually move this highly centralized civil service to one where local governments have considerable authority over personnel management.
Timor-Leste	Constitutional decentralization and establishment of local government has been in progress through the Local Development Program, and the government is now further developing the policy and legal framework related to the establishment of local government.
Vietnam	Economic reforms in the 1990s have helped to drive the creation of a sub-national government framework in this centrally planned communist state. The sub-national governments have some discretion though the centre still exerts substantial control. Provinces have greater power and authority over lower levels. Popular participation and grassroots demand for a political voice have grown, but the country remains a one-party state, centrally driven for the most part. The country has moved forward with its decentralization framework, but implementation is uneven. Sub-national governments play dominant roles in agriculture, forestry, irrigation, fisheries, power, water, education and health.

Country	Status of decentralization
Cook Islands	Local government has roles in law and order, and also public works.
Fiji	Local governments are constituted and their elections are mandated. The functions of the provincial local government are broad and developmental but it lacks the resources to carry them out.
Kiribati	Mandated local government elections. Local government has roles in many functions, including law and order, public works.
Marshall Islands	Constituted local governments but no mandated elections. Local government has only role in law and order.
Micronesia (Federated States of)	Full formal autonomy of local governments, including guaranteed revenue from national government and local legislations can override national legislations.
Niue	Local government does little beyond minor works but does have a role in law and order.
Palau	Constituted local governments but no mandated elections.
Papua New Guinea	Full formal autonomy of local governments, including guaranteed revenue from national government and local legislations can override national legislations. Certain national functions have been transferred to local government, which it receives grants to carry out, but these may be insufficient. Local government employs its own staff but relies on the national government to second senior and technical staff.
Samoa	Local government has roles in many functions including law and order, public works.
Solomon Islands	Local governments are constituted and their elections are mandated. Certain national functions have been transferred to local government, which it receives grants to carry out, but these may be insufficient. Local government employs its own staff but relies on the national government to second senior and technical staff.
Tonga	Mandated local government elections. Local government does little beyond minor works but does have a role in law and order.
Tuvalu	Mandated local government elections. The functions of the local government are broad and developmental but it lacks the resources to carry them out.
Vanuatu	Local governments are constituted and their elections are mandated. The functions of the local government are broad and developmental but it lacks the resources to carry them out.

Note: Information not available for countries not listed.

Source: Data for East Asia and South-east Asia are extracted from World Bank website: <http://web.worldbank.org/>. Data for the Republic of Korea are summarized from Kim (2007), Data for the Pacific island countries are summarized from Duncan (2004). Data for Mongolia are from Lkhagvadorj (2007). Data for Timor-Leste are extracted from United Nations Capital Development Fund, website: <http://www.uncdf.org/>.

The significance of decentralization lies in the ability of local authorities to react and respond to unique and particular situations and local economic development needs. The experience in decentralization, however, reveals a number of impediments and constraints (see Chapter 4). As with the rest of the world, the processes of global integration and decentralization have also helped to forge greater awareness and interest in the civil society or the 'third' sector. A growing number of political leaders and international donors have come

to see civil society organizations as strategically important participants in the search for a functioning society that is not dichotomized on either the market or on the state.³⁸ The changing role of civil society and the community in urban planning is discussed in Chapters 4 and 5 respectively.

Cities often have to address all of the above urban challenges at the same time. Urban planning, land, housing and urban infrastructure are all closely related matters. The pressure is magnified in megacities, which urban context is discussed in the next Chapter.

38. United Nations, 2004b.

2. Urban Context of Planning

This Chapter will describe the nature of the urban context within which planning takes place, with emphasis on the socio-spatial issues of concern to urban planning within the region. It is a context where many are challenged by rapid urban growth.

2.1. Urban growth

As noted in Chapter 1, the East Asia, South-east Asia and the Pacific region is characterized by diversity, in terms of demography, geography, economic, and political systems. A unifying development theme, however, is the irreversible and pervasive trend of urbanization. Analysis of urbanization data indicates that even though the average annual urban population growth of the region appears to be in decline over the past decade, urban population is still growing at annual rates of 0.5 to 6 per cent, with some, often the low-income countries, registering higher annual urban population growth rates, for example, Timor-Leste (6 per cent), Cambodia (5 per cent) and Indonesia (4 per cent) (Table 14).

Table 14. Urban population growth rates

Country	Average annual urban population growth rate (%)			
	1990–1995	1995–2000	2000–2005	2006
East Asia sub-region				
China*	3.9	3.6	3.2	2.9
DPR Korea	1.8	1.5	1.0	0.9
Hong Kong SAR, China	1.8	1.4	1.2	1.1
Macau SAR, China	2.1	1.4	1.4	0.9
Mongolia	1.4	0.6	0.9	1.1
Republic of Korea	2.2	1.1	0.8	0.7
South-east Asia sub-region				
Brunei Darussalam	3.7	3.2	3.0	2.8
Cambodia	5.7	6.0	5.0	4.8
Indonesia	4.6	4.8	4.1	3.7
Lao PDR	5.1	4.1	3.5	3.5
Malaysia	4.9	4.7	3.7	3.3
Myanmar	2.4	2.7	2.7	2.9
Philippines	4.4	3.8	3.5	3.3
Singapore	2.9	2.9	1.5	1.3
Thailand	1.7	1.6	1.5	1.6
Timor-Leste	4.5	0.8	7.1	6.0
Vietnam	4.0	3.4	3.2	3.2
Pacific sub-region				
American Samoa	...	...	...	...
Cook Islands	...	...	...	...
Fiji	3.0	2.1	1.7	1.6
French Polynesia	1.1	1.4	1.3	1.3
Guam	2.0	1.5	1.9	1.6
Kiribati	...	...	...	...

Country	Average annual urban population growth rate (%)			
	1990–1995	1995–2000	2000–2005	2006
Marshall Islands	...	...	...	...
Micronesia (Federated States of)	1.6	-2.3	0.5	0.6
Nauru	...	...	...	...
New Caledonia	2.7	2.7	2.3	2.2
Niue	...	...	...	...
Northern Mariana Islands	...	...	...	...
Palau	...	...	...	...
Papua New Guinea	2.7	2.7	2.7	2.8
Pitcairn	...	...	...	...
Samoa	1.1	1.4	1.2	1.5
Solomon Islands	4.3	4.2	4.2	4.2
Tokelau	...	...	...	...
Tonga	0.7	0.4	0.9	1.4
Tuvalu	...	...	...	...
Vanuatu	4.4	3.5	4.2	4.2
Wallis and Futuna Islands	...	...	...	...

... denote no information.

* Does not include Hong Kong SAR and Macau SAR.

Source: UNESCAP, 2007b.

Countries in the Pacific sub-region have been urbanizing rapidly too, with the highest annual urban population growth rates in Solomon Islands (4 per cent) and Vanuatu (4 per cent). In consequence, the dominance of rural settlement is forecasted to change. It has been suggested that Fiji, for example, will change from a predominantly rural to a predominantly urban society within 20 years.¹ A similar scenario will occur in the other sub-regions. China is expected to double its urban population from about 40 per cent during 2006–2030 to more than 70 per cent by 2050.² In many places, urbanization is an almost universal corollary of modern economic development.

Urban growth is not uniform. There is variation in urbanization rates between countries and within countries, highlighting the dynamic nature of urbanization. In China, this can range from 7 to 8 per cent in provinces such as Shandong and Jiangsu to 1 to 3 per cent in Guizhou and Qinghai. Almost all future population growth in the region will be in towns and cities. With the possible exception of the Pacific sub-region, rural population will decline in the period to 2030. The number of urban agglomerations is increasing, especially in the East Asia and the South-east Asia sub-regions (Table 15).

The number of large cities (mega-cities) is growing. Of prominence is the emergence of mega-cities (cities with more than 10 million people). By 2015, five of the world's 22 mega-cities will be in this region: three in East Asia and two in South-east Asia. The uneven pattern of urbanization is most apparent in situations where urban growth is concentrated around a country's major cities, sometimes including their surrounding areas, leading to the degree of city primacy and mega-cities.³ Many countries in the South-east Asia sub-region are distinguished by the primacy of their capital cities; Indonesia (Jakarta), the Philippines (Manila),

1. Connell and Lea, 2002.

2. Yusuf and Saich, 2008.

3. McGee, 1991; Ruland, 1996.

Table 15. Number of urban agglomerations

Size of urban agglomeration (million)	Number of agglomerations (estimates and projections)		Distribution of urban population by size of agglomerations (%)		Population (estimates and projections) (000)	
	2000	2015	2000	2015	2000	2015
World						
10 or more	17	22	8.42	9.41	239,655	359,238
5 to 10	28	39	6.80	7.15	193,583	272,960
1 to 5	335	460	22.35	23.83	635,867	910,092
0.5 to 1	403	494	9.78	9.08	278,271	346,789
Fewer than 0.5	...	...	52.64	50.54	1,497,425	1,929,945
East Asia, South-east Asia and the Pacific						
10 or more	2	5	3.26	6.38	24,308	70,234
5 to 10	10	13	10.13	8.20	75,496	90,312
1 to 5	100	144	25.81	25.83	192,299	284,541
0.5 to 1	125	144	11.69	9.52	87,071	104,861
Fewer than 0.5	...	...	49.11	50.08	365,862	551,690
East Asia sub-region						
10 or more	1	3	2.46	5.21	13,243	40,495
5 to 10	8	8	11.02	7.79	59,214	60,595
1 to 5	87	127	29.86	32.39	160,521	251,844
0.5 to 1	109	121	14.21	11.42	76,355	88,748
Fewer than 0.5	...	...	38.19	40.02	228,162	335,759
South-east Asia sub-region						
10 or more	1	2	5.38	9.25	11,065	29,739
5 to 10	2	5	7.92	9.24	16,282	29,717
1 to 5	13	17	15.45	10.17	31,778	32,697
0.5 to 1	16	23	5.21	5.01	10,716	16,113
Fewer than 0.5	...	...	66.03	66.32	135,781	213,211
Pacific sub-region						
10 or more	-	-	-	-	-	-
5 to 10	-	-	-	-	-	-
1 to 5	-	-	-	-	-	-
0.5 to 1	-	-	-	-	-	-
Fewer than 0.5	...	...	100.00	100.00	1,919	2,720

... denote no information.

Source: Based on UN-HABITAT, 2007: 338 and 385.

Thailand (Bangkok), Malaysia (Kuala Lumpur), Myanmar (Rangoon) and Vietnam (Hanoi and Ho Chi Minh City). In Cambodia as well, 55 per cent of the urban population live in the capital city of Phnom Penh (1998 census).

The centralized nature of countries in the Pacific sub-region has also encouraged the domination of a single urban centre, usually the capital city, at the expense of developing regional centres and towns. Fiji, for example, has a dominant urban centre in the Suva-Nausori corridor while much of the urban population in Kiribati is concentrated in the capital,

Table 16. Mega-cities and selected big cities, total population size (1990–2015)

City (Country)	Estimates and projections (000)					
	1990	1995	2000	2005	2010	2015
Shanghai (China)	8,205	10,423	13,243	14,503	15,790	17,225
Jakarta (Indonesia)	7,650	9,161	11,065	13,215	15,206	16,822
Manila (Philippines)	7,973	9,401	9,950	10,686	11,799	12,917
Beijing (China)	7,362	8,486	9,782	10,717	11,741	12,850
Seoul (Republic of Korea)	10,544	10,256	9,917	9,645	9,554	9,545
Guangzhou (China)	3,918	5,380	7,388	8,425	9,447	10,420
Shenzhen (China)	875	2,304	6,069	7,233	8,114	8,958
Wuhan (China)	3,833	5,053	6,662	7,093	7,542	8,204
Tianjin (China)	5,804	6,246	6,722	7,040	7,468	8,119
Hong Kong SAR (China)	5,677	6,187	6,637	7,041	7,416	7,764
Bangkok (Thailand)	5,888	6,106	6,332	6,593	6,963	7,439
Chongqing (China)	3,123	4,342	6,037	6,363	6,690	7,258
Ho Chin Minh City (Vietnam)	3,996	4,296	4,621	5,065	5,698	6,436
Shenyang (China)	4,655	4,627	4,599	4,720	4,952	5,377
Dongguan (China)	1,737	2,559	3,770	4,320	4,850	5,370
Bandung (Indonesia)	2,460	2,896	3,448	4,126	4,786	5,338
Hanoi (Vietnam)	3,126	3,424	3,752	4,164	4,703	5,320
Rangoon (Myanmar)	2,897	3,233	3,634	4,107	4,635	5,184

Note: Cities are arranged in sequence of increasing 2010 population size.

Source: UN-HABITAT, 2007: 385.

South Tarawa. As indicated in Tables 16 and 17, mega-cities grew most rapidly during the 1990s, especially the Chinese cities. The rate of change has seemed to stable at 1 to 3 per cent per annum in the 2000s, to 2015. Variations reflect the result of distinct urbanization processes in each country. There are three potential factors contributing to these processes,

- natural increase;
- migration: international migration (workers from poor countries move temporarily or permanently to more prosperous cities in other countries), and rural-urban migration; and
- urban boundary changes as cities incorporate nearby farm and residential land.

While natural increase predictably contributes to the rate of urbanization (around a third of Indonesia's urbanization is due to higher rates of natural population growth in urban areas), the migration of people from rural, generally poorer areas, to urban centres and their peripheries is a significant contributor. This is particularly the case where urbanization has been uneven and mostly confined to a country's major cities.⁴ Take Mongolia, where as much as 70 per cent of recent urban population growth is due to rural-urban migration. There is negative population growth in provincial towns as large numbers of people from provincial towns and other rural areas migrate to the capital, Ulaanbaatar.⁵ Related to the rural-urban migration is the phenomenon of 'floating population' (*liudong renkou*), a term that is widely used in China to refer to those migratory population without urban residency status so as to distinguish them from the "proper" city-dwelling workers. A legacy of China's *hukou* (household registration)

4. UNESCAP, 1993.

5. World Bank, 2004.

Table 17. Mega-cities and selected big cities, rate of change (population) (1990–2015)

City (Country)	Annual rate of change (%)					Share in urban population	
	1990–1995	1995–2000	2000–2005	2005–2010	2010–2015	1990	2015
Shanghai (China)	4.79	4.79	1.82	1.70	1.74	2.59	2.51
Jakarta (Indonesia)	3.60	3.78	3.55	2.81	2.02	13.79	11.65
Manila (Philippines)	3.30	1.13	1.43	1.98	1.81	26.75	19.18
Beijing (China)	2.84	2.84	1.83	1.83	1.81	2.33	1.87
Seoul (Republic of Korea)	-0.55	-0.67	-0.56	-0.19	-0.02	33.31	23.41
Guangzhou (China)	6.34	6.34	2.62	2.29	1.96	1.24	1.52
Shenzhen (China)	19.36	19.37	3.51	2.30	1.98	0.28	1.31
Wuhan (China)	5.53	5.53	1.26	1.23	1.68	1.21	1.20
Tianjin (China)	1.47	1.47	0.92	1.18	1.67	1.83	1.18
Hong Kong SAR (China)	1.72	1.41	1.18	1.04	0.92	100.0	100.0
Bangkok (Thailand)	0.73	0.73	0.81	1.09	1.32	36.63	29.79
Chongqing (China)	6.59	6.59	1.05	1.00	1.63	0.99	1.06
Ho Chi Minh City (Vietnam)	1.45	1.46	1.84	2.36	2.43	29.80	21.45
Shenyang (China)	-0.12	-0.12	0.52	0.96	1.65	1.47	0.78
Dongguan (China)	7.75	7.75	2.72	2.32	2.04	0.55	0.78
Bandung (Indonesia)	3.26	3.49	3.59	2.96	2.19	4.43	3.70
Hanoi (Vietnam)	1.82	1.83	2.09	2.43	2.47	23.31	17.73
Rangoon (Myanmar)	2.20	2.34	2.45	2.42	2.24	28.58	25.24

Note: Cities are arranged in sequence of increasing 2010 population size.

Source: UN-HABITAT, 2007: 385.

system to control urbanization, the ‘floating population’ is an important factor in the dynamic economic links between cities and their surrounding peri-urban and rural areas.

In addition to rural-urban migration and natural increase, cities are growing through urban boundary changes as cities incorporate nearby farm and residential land. More than 12 km² of mainly productive agricultural land and foreshores are lost daily to generally poor-quality forms of urban development.⁶ This process of urban growth in the transitional zone between the city and countryside—or peri-urbanization—is adding to the growth and territorial expansion of the city. In Indonesia, where rural-urban migration contributes more than a quarter of urban growth, the envelopment of rural land by expanding urban areas has been estimated to be between 30 per cent and 35 per cent, particularly in the densely populated island of Java. This island, where the capital, Jakarta, is located, is 61 per cent urbanized.

The combined effect of all the urban growth factors is that many cities are doubling in size every 15 to 20 years. The scale and pace of urbanization is changing social and physical development with impact on the morphology of cities, in their size and rates of expansion as well as their physical structuring. The resultant urban forms include primate cities, mega-cities, peri-urban areas, urban villages, smaller towns and medium sized cities of less than 0.5 million population. In most cases, there is scant information on the role of medium-sized cities, which are often overshadowed by the growth of primate and megacities. One can expect these cities to have even less capacities to deal with the issues of urban development than the primate cities and megacities.

6. Roberts and Kanaley, 2006.

2.2. Socio-spatial issues

Where growth is particularly unbalanced, cities can end up dominating the urban system of the country even though they may be poorly located for national development, resulting in the growth of primate cities and the emergence of desakota regions (neither city nor rural) first observed in South-east Asian cities.⁷ Primate cities, mega-cities and peri-urban areas are distinctive aspects of the current urban planning landscape. They are also perhaps the most challenging of urban contexts, in terms of their size and complexity.

A classic example is Jakarta, Indonesia. With a population of about 12 million (or 21 million if the wider conurbation of surrounding towns in Jakarta Metropolitan Region is included), Jakarta is the country's primate city, one of the region's mega-cities, and one of the world's largest urban areas. As is typical of other large urban agglomeration in the region, Jakarta has developed an extended urban region beyond its official boundaries, incorporating a range of smaller urban and rural administrative areas along urban corridors spreading out from the metropolitan region. The Jakarta Metropolitan Region covers an area of approximately 7,500 km².

The easier availability of land and land tenure arrangements that restrict the redevelopment of older inner-city areas have encouraged urban growth on the urban fringe. In the process, it has transformed rural villages into urban settlements without displacing most of the residents. Estimates indicate that 77 per cent of urban growth in Jakarta extended urban region, and 53 per cent in Bangkok extended urban region to 2025 will be in peri-urban areas.⁸ Bangkok, Thailand, has grown from 67 km² during the 1950s to 426 km² by the mid-1990s. The Bangkok Metropolitan Area covers an area of 7,761 km², and has a registered population of 10 million, which is projected to grow to 30 million by 2020. By 2020, the Jakarta Metropolitan Region is projected to have a population of 100 million. These urban areas account for a large proportion of the national urban population, from 20 per cent in Jakarta Metropolitan Region to 50 per cent in Bangkok Metropolitan Region.⁹

Up to 40 per cent (200 million) of China's urban growth to 2025 is expected to occur in peri-urban areas. The peri-urban zone can be extensive, extending as far as 150 km or in some Chinese cities, 300 km from the core city.¹⁰ Shanghai Metropolitan Urban Region covers an area of over 6,300 km², while the Beijing Metropolitan Urban Region is more than 16,800 km². These mega-cities are introducing an urban context of a size and geographic scale never before experienced. The ensuing spatial structure of the city typically comprises:

- core built-up area, which is often the city administrative unit and historic area;
- metropolitan ring with a significant share of new and/or relocated manufacturing and service industry and rapid residential population growth;
- extended metropolitan region characterized by a few clear urban/rural settlement boundaries, a dispersed pattern of manufacturing and service industries, housing estates and individual construction and a significant proportion of farmers in non-agricultural jobs.¹¹

To this pattern, variations could be discerned. For example, Beijing has six sectors: the historic city core, which historic landscape is increasingly threatened by modern urban functions; central built-up area which surrounds the historic core; inner greenbelt with the

7. McGee, 1991.

8. Webster and Muller, 2004.

9. Atkinson, 1993; Ruland, 1996.

10. Webster and Muller, 2004.

11. McGee, 1991.

objective to define the edge of the central area and provide adjacent open space; scattered districts or the inner suburban development areas; and the satellite towns in the outer suburban area. Greenbelt has been used to contain metropolitan growth (also in Shanghai, China and Seoul, Republic of Korea) but seemingly with limited success in light of the continued expansion of these cities.

The extended metropolitan region is often the setting of conflicts in the use of high-value agricultural land for more intensive urban-residential, commercial and leisure uses for the adjacent city (see Chapter 7). Peri-urbanization is a powerful process that includes changing economic structure (from agriculture to manufacturing-dominated economy), changing employment structure (agriculture employment falling to below 20 per cent of local labour force), rapid population growth (often as high as 5 to 8 per cent per year), and changing spatial development patterns and rising land costs.¹² In some cases, the extended urban region is recognized by a special administrative/institutional status such as JABOTABEK (Jakarta Metropolitan Region) in the case of Jakarta, Indonesia, the Bangkok Metropolitan Region in Bangkok, Thailand, and the Manila National Capital Region in Manila, the Philippines.

Population density in these cities is high, and getting higher at a significant speed with urbanization. On a country level, Macau SAR, China, has the highest population density not just in the region but also in the world, at 16,934 persons per km² (Table 18).

Table 18. Population density, East Asia, South-east Asia and the Pacific (1990–2030)

Country	Population per km ²				
	1990	2000	2005	2006	2030
East Asia sub-region					
China	120	132	137	138	154
DPR Korea	167	190	196	197	...
Hong Kong SAR, China	5,224	6,101	6,463	6,531	8,140
Macau SAR, China	13,197	15,641	16,776	16,934	18,566
Mongolia	1	2	2	2	3
Republic of Korea	432	471	482	484	505
South-east Asia sub-region					
Brunei Darussalam	45	58	65	66	109
Cambodia	54	71	77	78	118
Indonesia	96	111	119	120	148
Lao PDR	17	22	24	24	40
Malaysia	55	71	78	79	108
Myanmar	59	68	71	72	94
Philippines	204	254	282	288	389
Singapore	4,436	5,908	6,191	6,269	8,022
Thailand	106	118	123	124	142
Timor-Leste	50	55	72	75	158
Vietnam	201	240	258	262	328
Pacific sub-region					
American Samoa	236	285	320	327	458
Cook Islands	74	67	58	57	...
Fiji	40	44	45	46	53
French Polynesia	49	59	64	65	90
Guam	243	282	306	311	418

12. Storey, 2002; Webster and Muller, 2004.

Country	Population per km ²				
	1990	2000	2005	2006	2030
Kiribati	98	115	126	128	208
Marshall Islands	163	290	315	322	343
Micronesia (Federated States of)	138	153	157	158	191
Nauru	458	502	506	507	...
New Caledonia	9	12	13	13	19
Niue	9	7	6	6	...
Northern Mariana Islands	92	145	168	172	248
Palau	32	42	44	44	48
Papua New Guinea	9	12	13	13	18
Samoa	57	62	65	65	66
Solomon Islands	11	14	16	17	29
Tonga	126	131	132	133	137
Tuvalu	314	340	348	350	...
Vanuatu	12	16	18	18	28

... denote no information.

Source: UNESCAP, 2007b, except for year 2003 which are from UN-HABITAT, 2007: 344.

Hong Kong SAR, China and Singapore are the other densely populated countries, where density is more than 6,500 persons per km². Urbanization is also raising densities in several parts of the Pacific. On Ebeye, Marshall Islands, reportedly the most densely populated island in the Pacific, density has risen from 17,000 to 26,000 persons per km² between 1980 and 1999.¹³ The pressures of densification, spatial expansion and urbanization are driving socio-spatial issues in many cities, and bearing increasing recognition in urban planning and policy agenda. The magnitude and priority of these issues vary from country to country but they generally include,

- **Adequate provision of housing:** Demand for housing has exceeded all expectations. The rapid urban population growth needs to be adequately accommodated.
- **Planning cities without slums:** Housing inadequacy is often manifested in overcrowding and growth of slum conditions and squatter/informal settlements. These settlements give shelter to the majority of the poor. In many parts of the region, urban growth has become synonymous with the growth of slums (bad housing condition),¹⁴ leading to more squatting, many on flood-prone areas, landfill sites and other dangerous places, and requiring urgent action to address the shortcomings of these conditions.
- **Adequate provision of urban infrastructure:** Inadequate transport and infrastructure have become endemic in many cities. In urban Cambodia, particularly in Phnom Penh, the biggest physical issue is the lack of basic urban infrastructure and services such as water supply and drainage, especially in squatter areas. Much of the urban infrastructure, including water supply systems is 70 to 80 years old and in dire need of upgrading.¹⁵ Formal public transportation systems do not exist in many urban areas. There is pressing need for cities to solve the infrastructure backlog, and provide infrastructure that is adequate to meet the growing population demand.

13. ADB, 2006.

14. Davis, 2006; UN-HABITAT, 2006.

15. ADB, 2008c.

- **Planning healthy cities:** This returns urban planning to its early roots of public health concerns. In Kiribati and Tuvalu, the high and growing prevalence of contagious diseases such as hepatitis, cholera and typhoid is traced to a lack of access to clean water supply, adequate sanitation and garbage disposal. At issue is the need for cities to plan, design and regenerate the urban environment for human health, wellbeing and quality of life.
- **Environmental management:** Urbanization has been closely linked with the growth of manufacturing industry in some countries, such as the Republic of Korea, China, Malaysia, Thailand, Indonesia and the Philippines. There is a need to better manage the urban environment to prevent and reduce environmental deterioration associated with economic and urban growth. Increasingly, cities have to deal with the ever-important context of reducing their ecological footprint and developing more sustainably.
- **Reduce urban poverty:** Even though urbanization has contributed to economic growth, it has also increased urban poverty. The pervasiveness of urban poverty has framed the urban context across the region.¹⁶ This issue is particularly evident in heavily populated squatter settlements where many live under conditions of unemployment, tenure insecurity, poor infrastructure, increasing crime and violence, pollution and congestion.¹⁷
- **Planning just and safer cities:** Poverty in some areas translates to begging on the street and criminal youth gangs, making safety an important consideration in the urban context.¹⁸ As stated in Chapter 1, many (some 70 per cent) of the poorest people are women. In many areas, women are disadvantaged, gender-based violence is insidious and rampant.¹⁹ The ethnic plurality and heterogeneity of the urban population accentuate the need for an urban context that features inclusive social development; that is safe and just.

The growing urban population frames the planning context, requiring urban growth management, and investment in housing and urban physical infrastructure and services. Without action, slums will only worsen with further urban growth, resulting in higher costs to urban areas that will in turn erode economic growth, and the sustainability of cities. Yet, most countries—with a few exceptions, such as Singapore—lack the capacity and experience to deal with these expansions. In many cases, urbanization is occurring within a framework of weak plans and governance (see Chapter 4), and taking on forms, which are largely informal (see Chapter 7). Compounding matters, urban planning is a new and fairly recent development in the region (see Chapter 3).

16. ADB, 2005.

17. Garau et al, 2005.

18. UN-HABITAT, 2007.

19. UNICEF, 2006.

3. Emergence of Modern Urban Planning

This Chapter aims to review the emergence and nature of contemporary or modern urban planning within the region, and discuss the mechanisms and factors underlying the shift and spread of planning. The discussion is organized into three sections: traditional forms of urban planning, major shifts in planning over the past century, and innovations in contemporary planning.

3.1. Traditional forms of urban planning

Countries vary in their development history. Some such as China (with its long lineage of dynasties), Cambodia (Angkor), Myanmar (Pagan) and Indonesia (Majapahit) have civilization and sphere of influence that is century-old, while others such as Timor-Leste have a relatively short development history, having become independent in 2002 following 25 years of conflict, which destroyed 70 per cent of the country's physical infrastructure. This section will discuss the forms of urban planning that existed within the region before the emergence of formal or conventional urban planning. For most countries in East Asia, South-east Asia and the Pacific region, this is related to pre-colonial settlement (village), and to the influences of Indian and Chinese culture through trade and religion.

China has perhaps the longest history of urbanization in the region, with the presence of urban settlements recorded as far back as 600BC. Planning during this early era was grounded on the proper alignment of the spiritual forces of Heaven, which was viewed as necessary to ensure the continual prosperity of the country. After the turbulent warring state period (480–221BC), planning was revived during the Western Han dynasty (206BC-AD24). Once again, it was influenced by classical ideology, and was mostly concerned with ensuring that the layout of cities, in particular, the imperial capital, was in harmony with particular cosmic forces. The prevailing thought was that the alignment of a city's spatial pattern with the right cosmic forces would bring peace and prosperity.

Following another dark period of war and disorder, the dynasties of Sui (AD581–617) and Tang (AD618–907) continued the development of the by-then dilapidated capital city, constructing the city along a grid pattern crisscrossed by six major avenues and numerous other smaller streets running at right angles to each other. Residents in these cities lived in walled compounds. The decline of the Tang dynasty ended the rigid planned structure of cities, and settlements mushroomed beyond city walls. The subsequent Song dynasty (AD960–1279) furthered this new, relaxed approach to urban planning. Additionally, planning from this era onwards was a decentralized affair. With the exception of major public works, it was the responsibility of local governments. This pattern of development continued for the most part of Chinese history until the world wars, and the regrouping of urban planning powers in the post-Mao period when urban planning was officially rehabilitated and reconstituted with the City Planning Act of 1989, which set up a comprehensive urban planning system by law for the first time in China (see Section 3.2).

Cambodia is another country with a long history that dates to 100BC or earlier. The first known Kingdom of Cambodia (Funan Kingdom) was strongly influenced by Indian culture. This and other kingdoms after it built capital cities, and left evidence of achievements in architecture and sculpture, including the temples and irrigation system in the Angkor area. Angkor Thom, the last capital city of the Khmer Empire covers an area of 9 km² with gates at each of the cardinal points. Within its walls (8 meters high) were temples, the king's residence

and other important and secular buildings of the city, served by a system of canals, through which water flowed from the north-east to the south-west. By AD1200, Cambodia had spread into neighboring areas, present day Thailand, Lao PDR, Myanmar and Malaysia, bringing with it the Angkor (Khmer) architecture and construction. But from about the 14th to 19th century, Cambodia was ravaged by Vietnamese and Thai invasions and wars, which only ended in 1864 with the treaty marking French protection over Cambodia.

In the pre-colonial period, religion and trade appear to feature strongly in city building. Indian and Chinese influence, especially Hinduism and Buddhism spread to various parts of South-east Asia, resulting in the construction of monumental Hindu/Buddhist temple complexes. An example is the temple of Borobudur, Indonesia, one of the world's largest Buddhist temples, which was built around AD 800 based on Buddhist cosmology. Hindu traders had built colonies in South-east Asia at the Mekong valley, and also at the Malay Archipelago as early as the 2nd century, which for the most part, had remained as coastal villages. In the Pacific countries, too, urban centres did not really exist before colonial times. Given the traditional rural lifestyles of indigenous Pacific islanders, urban planning, as we understand it today, was largely absent from the settlements of that time. Most Pacific islanders, before colonization, lived in rural villages. It can be said that urban planning has been the imposition of an alien set of ideals.

3.2. Major shifts in planning over the last century

Two major spheres of influence could be identified: colonization and communism, in the evolution of urban planning in the region. Colonization by Europeans during the 16th century is a major turning point in many cities, setting in motion the transformation from village to town, the growth of multi-ethnic society and the introduction of planned settlement through urban planning as practiced in the colonial home country (Table 19). In British colonies (and protectorates)—in Hong Kong SAR, Malaysia, Singapore, Solomon Islands and Fiji, for example—for much of the colonial period, the administration attitude was largely laissez-faire as concern was with trade development. However, with population growing to a million people, the British 1947 development plan and development control system was introduced. Master plans were prepared for the colonies by British master planners of the time (for example, Sir Patrick Abercrombie), reflecting the prevalent British ideals of growth containment and new town development.

Table 19. Major influences on contemporary urban planning

Country	Colonial system								Communism	Independent
	Britain	Germany	Netherlands	France	Japan	Portugal	Spain	USA		
China									√	
DPR Korea									√	
Hong Kong SAR, China	√									
Macau SAR, China						√				
Mongolia									√	
Republic of Korea					√			√		
Brunei Darussalam	√									
Cambodia				√						

Country	Colonial system									
	Britain	Germany	Netherlands	France	Japan	Portugal	Spain	USA	Communism	Independent
Indonesia			√							
Lao PDR				√						
Malaysia	√									
Myanmar	√									
Philippines							√	√		
Singapore	√									
Thailand										√
Timor-Leste						√				
Vietnam				√					√	
American Samoa								√		
Cook Islands	√									
Fiji	√									
French Polynesia				√						
Guam								√		
Kiribati	√									
Marshall Islands								√		
Micronesia (Federated States of)		√			√			√		
Nauru	√									
New Caledonia				√						
Niue	√									
Northern Mariana Islands								√		
Palau					√			√		
Papua New Guinea	√									
Pitcairn	√									
Samoa	√									
Solomon Islands	√									
Tokelau	√									
Tonga	√									
Tuvalu	√									
Vanuatu	√			√				√		
Wallis and Futuna Islands				√						

The other western colonial powers like the British were primarily interested in trade and exploration. With the colonists also came missionaries, bringing new religion and western education, churches and school buildings to the region. The Jesuits, Franciscans and Spanish conquistadores brought Spanish fortifications and colonial layout to the Philippines in the form of grid pattern, squares, city walls and Spanish style churches. In several parts of the Philippines, for example, in Luzon and the Visayas, the Spanish colonial government imposed land tenure arrangements, making local people tenants on lands their ancestors had tilled, creating new land tenure and ownership arrangements that resulted in involuntary landlessness and marginalization of some local communities. The French brought French

colonial layout to the major towns of their Pacific colonies. By 1906, the Pacific was fully colonized by western countries (Great Britain, USA, Germany, Netherlands, Spain and France). It is not surprising that colonization has left an indelible impact on many cities in the Pacific and South-east Asia sub-regions, including world heritage sites.

While these countries are now largely independent, many of their institutions have been shaped by their colonial past and several of their present challenges have colonial roots. All countries in Melanesia, for instance, have planning legislation borrowed from British municipal model. In Micronesia, with the exception of Kiribati, planning legislation has been adopted from American municipal model due to the large American influence in that region. However, in Polynesia, there is nothing that can be classified as conventional planning legislation. Many Pacific towns started life in the early half of the 20th century as administrative centres for expatriates, populated almost solely by white men. Many remained for the most part as mission station and trade store, for example, Port Vila, Vanuatu. Inevitably, they were built along European models and excluded native islanders who were regulated to their own indigenous villages. These towns continued to develop during the post-war period, often without any form of planning although planning legislation usually existed (sometimes dating back as early as the 19th century). In some instances, a town was in reality little more than a cluster of urban villages arranged along a simple grid layout. Nuku'alofa in Tonga provides one such example.

In larger cities like Port Moresby, Papua New Guinea, planning, where it did occur, served mainly colonial interest to create and entrench racial segregation. Throughout the colonial period, all but the largest Melanesian urban centres lacked land use plans or urban zoning frameworks. Micronesian countries also exhibited very little planning. There were no high-rise buildings, but many slum settlements. Despite the import of western development control tools such as land use zoning, one of the major problems persisting in the Pacific sub-region is the lack of planning, often compounded by weak government institutions in relation to traditional customary landowners. The colonial powers had introduced the western notion of private property, which commodified land allowing it to be bought, leased or sold, in direct contrast to the customary nature of Pacific land rights. The colonial administrations had presumed that these 'modern' values pertaining to land ownership would be adopted in the post-independence period.

Outside the Pacific, the French were also in Lao PDR but built very few roads, except the main colonial road to Vietnam and Cambodia, and no new higher education or health facilities. The bulk of the French Indochina population were in Vietnam and Cambodia where the French colonial government set about systematically rebuilding the major Vietnamese and Cambodian cities according to European specifications. A typical colonial city grid was superimposed over these cities, serving commerce rather than social factors. Central to the French urbanist plans was the segregation of the cities into quarters based primarily on the ethnicity of residents. In the European quarters, wide boulevards were lined with spacious residential villas. In the ethnic quarters, accommodation was less generous. Many important public buildings were constructed in Parisian neo-classical style.

Similarly, modern town planning in Indonesia can be traced to the former Dutch East Indies, which materialized after the central government in Batavia (present day Jakarta), Indonesia, decentralized part of its authority to local administrative entities in 1903, allowing municipalities and regional governments to plan and develop their territory. Dutch engineer, Herman Thomas Karsten (1885–1945) played a prominent role in Indonesian town planning during the Dutch colonial rule. He integrated the practice of colonial urban environment (forms of difference according to the order of relationship between various ethnically, racially and economically urban dwellers) with native elements (local housing, culture and traditions),

arguing that town planning is an activity of interconnected components—social, technology, etc.

Karsten emphasized the importance of creating an organic town plan with social dimensions and good aesthetics, and put his treatise to plan in a neighbourhood plan for all ethnic groups in Semarang. His idea was well received in the colony and in the Netherlands, leading to him being commissioned to plan 12 of 19 municipalities in Java, three out of nine towns in Sumatra, and a town in Kalimantan (Indonesian Borneo) between 1915 and 1941. He was also appointed to the Town Planning Committee, which produced a draft of the Town Planning Ordinance in 1938. Implementation of the Ordinance was interrupted by the Second World War and independence, which engendered the requirement to revise the pre-war draft to adjust to current needs and demands. In many cases, urban planning during the colonial period was for a different set of priorities that often did not foresee the rapid economic, political, social and other changes of the post-independence years. The colonial institutions and plans were designed to manage steadily growing cities not fast growth.

In the Pacific sub-region, the Second World War brought big changes in urban life. Settlements such as Port Villa, Vanuatu—which had a population of about 1000 in the 1930s—received a large contingent of US military. From 1942 to 1945, more than 100,000 US servicemen were stationed there, employing around 10,000 local people. For most of the local population, this was their first contact with urban life. The US Army expanded the urban infrastructure by building airstrips, hospitals, wharves and warehouses, storage dumps and a network of roads to connect them. In South-east Asia sub-region, there was a different picture. There was massive destruction of local infrastructure, housing and no planning, leading to severe post-war shortages in housing and slums in many countries. Japan occupied many countries during the war. In the case of Korea, Japan was there for 35 years.

Korea became a protectorate of Japan. To serve its military and production requirements, the Japanese government built industrial and transportation infrastructure on the Korean peninsula, including development of port facilities, railway system such as the main truck railway from the port city of Pusan through the capital of Keijo and north to the Chinese border. Ethnic Japanese were encouraged to settle in Korea. By 1910, over 170,000 Japanese had settled in Korea, making it the largest overseas Japanese community in the world at the time, and with it land reform to facilitate Japanese settlers' land ownership in Korea. After the war, many of the colonies initiated the struggle to independence while severe housing and social problems remain.

Even as some countries were adjusting to post-colonialism in the 20th century, others were embracing the spread of Marxism. Urban planning in the countries that adopted communism was an extension of economic central planning, and a wholly top-down affair. Many of these countries looked towards the former Soviet Union as another proponent of socialist ideology, for inspiration and direction in the formation of various institutional frameworks. After two decades when planning was virtually absent from city building under Maoism, many Chinese planners were sent to the Soviet Union to study. Following the 1989 City Planning Act, planning expertise was sought chiefly for the production of master plans, which the act had legislated. All cities were required to have urban master plans (Comprehensive City Plans), aiming to 'reduce the differences between town and country', and 'facilitate socialist development and industrialization' in typical Soviet style.¹

Consequently, urban planning of Chinese cities, including the Special Economic Zones such as Shenzhen, from the 1950s to 1986, was restricted to the continuity of the national

1. Friedmann, 2005: 38.

economy planning with remarkable technical character and emphasis on infrastructure construction of ‘seven supplies and one levelling’ (a term broadly used in the field of urban planning and construction of China, which means seven kinds of infrastructure including transportation, electricity, water, drainage, telecommunication, heating, and gas to be supplied, and the land to be consolidated before any further construction), as well as the large projects guided by the government. In terms of urban administration, the ‘five unification’ mode was formed: unified planning, unified expropriation, unified development, unified transfer, and unified administration. There was little, if any, consideration of the overall effect of these individual projects.

This model of planning largely persisted until 1986 when the Urban Planning Committee of Shenzhen, the first decision-making urban planning institution, was inaugurated. Since then, Chinese urban planners have increasingly looked to Hong Kong SAR’s urban planning system, and to international experts for inspiration.² The first overseas expert was invited to Shenzhen in 1982, and all subsequent master plans in that city have had foreign advice. By the end of the 20th century, urban planning has evolved from technical, detailed control planning to spatial planning, and is increasingly an amalgamation of Chinese and western urban planning systems. Parallel development appears to be taking place in other transitional economies.

In Vietnam, with socialist ideals shaping the urban planning system of the country, Vietnamese central planners viewed their cities as ‘production centres’. Planning and management was conducted only with economic output in mind, and there was little consideration of the impacts of planning decisions on other areas, for example the environment and social welfare. As with China under the ‘Former Soviet Union Mode’, urban planning basically entailed a list of government-approved infrastructure projects waiting to be constructed by government agencies. There was no overarching strategic view relating to individual projects, nor was much importance placed on evaluating the synergistic effect of separate decisions. This situation largely persisted until the Doi Moi (innovation or economic) reforms were adopted in 1987.³

By the latter part of the 20th century—as these countries made the transition from planned economies to free markets—the socialist system of planning was replaced with models of planning involving master plans and strategic development plans. Cities were no longer viewed as solely ‘production centres’ to the neglect of social and environmental issues. In recent years, there is more emphasis on ecological strategy, environmental and social considerations to create unique and memorable living and work places in new urban areas. There is more interaction with the international community through international design competitions to gather new ideas and the latest development trends, for example, the International Design Competition for Thu Thiem New Urban Area, Ho Chi Minh City, Vietnam, International Urban Planning and Design Competition for Foshan Nanhai district in Guangdong Province, China, and Xiamen new downtown at Maluan Bay, China.

There is also more public participation in the planning process. The Thu Thiem New Urban Area Master Plan, for example, has a process that allowed for the participation of numerous agencies, citizens and other interested parties in the development of the plan. Government institutions are beginning to acknowledge their role as enablers of development, as opposed to mere service providers, and inter-department networking and collaboration is becoming more widespread. But problems remain when authorities and responsibilities between government departments and agencies are blurred, as is the case in Vietnam where

2. Li and Wang, 2007; Wang, 2000.

3. Boothroyd and Pham, 2000.

plan preparation is the responsibility of multiple agencies (see Section 3.3). Notwithstanding increased public consultation, the urban planning system remains mostly a top-down process with important planning decisions still the responsibility of the central government. The top-down and vertical urban planning paradigm appears common in the region, from Singapore, Thailand to Korea and also the transitional economies of China and Vietnam.

In Thailand, which largely escaped colonial influence, much of its early development was done without a formal land use master plan and centred on the capital city of Bangkok. Consequently, urban and industrial developments have encroached into agricultural areas, exacerbating natural disasters such as landslides and flooding. Since 2002, the Thai Cabinet has mandated the Department of Town and Country Planning to develop comprehensive land use planning processes throughout the country, thus aligning Thailand's land development with international practices. Master plans are created at national, regional and provincial levels to provide a broad development framework for city/town and community levels. Local and community development plans in turn address specific implementation issues and comply with overall master plans.

3.3. Innovative urban planning

This Section will review innovative forms of urban planning, if any, that have emerged within the region. Where possible, this review will also attempt to identify innovative forms of planning that might not have been documented in mainstream literature.

Since the late 1990s, a number of countries (and cities within countries) in East and South-east Asia sub-regions, for example, Cambodia, China, Indonesia, Thailand, the Philippines, have prepared City Development Strategies (CDS) with World Bank technical assistance. These strategies are aimed at helping cities to assess the state of the city and its region, link economic growth and poverty reduction objectives, develop priorities and action plan for equitable growth that often includes citywide slum upgrading strategies. The focus is on implementation and provides cities with critical tools in decision-making. CDS, therefore, provides an important resource and capacity base for cities, especially for those where city planning and management is a new experience. In the Philippines, the CDS cities have come together to share experiences, best practices and related tools following their CDS implementation. This is a good networking and learning platform towards developing the cities' knowledge resources and action in urban development and management.

Countries are beginning to prepare national development strategies following the Johannesburg Plan of Implementation, 2002. Its value in urban competitiveness and sustainable development is increasingly recognized. Supported by technical assistance from agencies such as the United Nations, Mongolia, Lao PDR, Thailand, Myanmar, Cambodia, China and Vietnam have started to prepare their national strategy. But the capacity of the authorities within the countries has not improved as much, and coordination of urban planning and development remains fragmented and weak.

Without proper coordination and structure, the national development strategy have little relevance and ability to respond effectively to change. Take Vietnam. Vietnam has introduced the Orientation Master Plan for National Urban Development to 2020. This plan is designed to bring strategic direction to the country's urban planning process by delineating the government's policy for urbanization. While providing a framework to guide national development, the plan suffers from coordination problem inherent in the present planning system where spatial plans are prepared in four levels of detail: orientation plans (national policy), regional plans, general plans (province or city), and detailed area plans (districts, wards, industrial zone, or development project) by different ministries.

In Vietnam, the urban planning process is highly fragmented. There is little communication or teamwork between these ministries during the planning process. Government authorities tend to function autonomously without relation to the other authorities involved. Most of the plans are prescriptive for specific land uses in specific locations (a legacy of past planning practices), and the intended sequence of planning with spatial plans following socio-economic plans does not always occur (often this is because budgeting is the responsibility of a different government authority), and implementation is frequently abandoned at local levels. There is a need to improve coordination and capacity of planners, for many of whom the contemporary urban planning practice of economic, social and environmental considerations is a new and external experience.

In the Pacific sub-region, too, urban planning and management initiatives are mostly the result of external agencies, usually the ADB or World Bank. Plans and any planning legislation drafted under these programs are usually the work of foreign experts. Further action regarding implementation and management of these plans on the part of local governments is generally not taken despite the presence of severe urban problems within many countries. For instance, the 1997 collaboration of a Hong Kong-based consultancy group with the Vanuatu National Planning Office led to the publication of an Urban Management Report under the ADB, but not any actual implementation in Vanuatu itself. There is a need to build the capacity of urban planners in the region if plans are to see implementation (see Chapter 10).

The more developed countries—such as Singapore, Malaysia and the Republic of Korea—have also included national development strategies as part of their planning forms. Increasingly, active participation of local governments, residents, and non-governmental organizations (NGOs) are encouraged in the plan preparation. GIS techniques and Land Information Network Systems are also being implemented to support comprehensive and efficient territorial management. Where resources avail, an increasing number of cities have moved to incorporate GIS and land information system capability in their urban planning system. China, Hong Kong SAR, Singapore and Malaysia are some countries that have started this implementation. In China, the Ministry of Construction has introduced a remote-sensing monitoring system for two categories of cities: cities with master plans for urban development approved by the State Council, and cities designated as national-level, well-known cities of historical and cultural significance.

Since 1999, Singapore has promoted the use of electronic submission over the internet under its Electronic Development Application (EDA) system. Capitalizing on Singapore's broadband network, EDA is part of the larger effort to reengineer the business process in the construction industry to allow actors in the construction and real estate industry to communicate and exchange information seamlessly. All types of development applications can be submitted using EDA. Applicants can submit text files and CAD drawings, and obtain on-line approval. The proportion of e-application has increased from 9 per cent of all planning applications in 2000 to 99 per cent by 2004. The majority (95 per cent) of e-applicants received a decision within four weeks. Needless to say, such innovation in planning requires resources and further training.

4. Institutional and Regulatory Framework for Planning

This Chapter will attempt to illuminate the institutional and regulatory framework for planning, and how this facilitates or hinders the formulation and implementation of plans. Where necessary, other constraints to plan formulation and implementation will be discussed.

4.1. Institutional framework of urban planning

In many parts of the region, the actors in urban planning and development can be classified into four key groups:

- **Local and national governments:** They play key roles in providing the legal, policy and regulatory frameworks in which urban planning and development occurs. With globalization, they are increasingly under pressure to liberalize their economies, to focus state investment on infrastructure to support production and economic development, and to more actively engage the private sector in achieving goals for economic growth. In some contexts, this has led to the introduction of Special Economic Zones (for example, in Vietnam and China), greater flexibility in development control (such as Singapore) and the view that urban development is best left to the private sector, resulting in the privatization of services and mega-projects discussed in Chapter 8.
- **Private sector:** This sector includes the micro, small, medium and large enterprises, entrepreneurs and developers. They are increasingly seen as the agents of ‘cutting edge’ innovations and finance in urban development. They are progressively involved in building support infrastructure, including community infrastructure and large-scale transportation systems such as light rail, regional rail and toll roads. In some cases, they have even conceived their own visions for urban redevelopment, often centred on integrated urban mega-projects, usually in strategic locations (for example, Xintiandi, Shanghai, China; Muang Thong Thani, Bangkok, Thailand) where they do not just develop real estate but conceptualize and implement entire urban systems that are overlaid onto the existing urban form. They are involved in the planning process from visioning of urban futures to the management of the urban environments that they create. Even so, as private sector firms their central aim is to create exciting urban projects and spaces to attract the consumer and maximize profit. The future role of these developers needs to be reconsidered against sound principles about the rationale for public and private action in urban development to ensure that the poor do benefit.
- **Consumers:** There are two broad groups. The first is the emerging middle income consumer class in urban economies (the cosmopolitan elite) who together with the high income groups have tastes and demands that are shaped by culture-specific preferences as well as by their exposure to consumption landscapes through international travel and media. The second is the urban poor and lower-income communities who are preoccupied by a daily struggle to meet basic needs, leading lives that are separate and distinct from the first group. For many of them, home is in the informal settlements (see Chapter 7). But they as well as the first group live in the city, and their needs must not be excluded from planning and decision procedures.

- **Civil society:** With decentralization, a fourth group is emerging, civil society who bridges between the authorities and the consumers. The state of civil society and civic participation varies greatly, from the most developed and organized in the Philippines to countries like China and Vietnam, which do not emphasize civic participation and do not have vibrant civil society. However, this may change in future as decentralization progresses.

Since the 1990s, a number of countries have adopted decentralization policies (see Chapter 1). For example, Indonesia launched its ‘big bang’ decentralization policy in 2001 after 30 years of a highly centralized national government, effectively devolving almost all government functions to local governments.¹ While decentralization has the advantage of empowering local governments, and bring governments closer to their constituents so that government services can be delivered more effectively and efficiently, new problems have arisen.

Coordination: This is a common problem that detracts the benefits of decentralization. It can occur at various levels such as central/local, central/provincial/local, national/sub-national. Part of the problem is that countries are caught in an ‘institutional limbo’ between the dissolution of the old, top-down service-delivery mechanisms and the emergence of still-weak decentralized structures while part of the problem lies with clarity of structure and powers. In the Philippines, where decentralization has been in practice for a number of years, problems lie at the provincial level.² Provinces, generally weak compared to cities and municipalities, lack co-ordination among themselves. Plans are typically formulated and implemented by each province independent of its neighbouring provinces, despite the obvious benefits that can be derived from networking and collaboration. In Cambodia, the legal framework, roles and responsibilities of different actors are not clear. To add to the confusion, several parallel systems of planning and funding operate simultaneously. In Indonesia, the lack of clarity of some of the implementation legislation³ have created confusion on central government policies on managing certain areas and functions such as transport, communication, statistics and family planning.

Capacity: Decentralization often leaves local governments grappling with capacity problems as they lack the necessary skills and expertise to efficiently perform their new responsibilities. Across the region, local governments generally lack the resources and power to fulfil their new responsibilities. In Cambodia, this extends to a lack of effective mechanism for financial oversight of funds transferred to local authorities and creates incentives for corruption. In Thailand, clear decentralization policies have not been matched by implementation on the ground. In the Pacific sub-region, the notion of western-style local government is contrary to the traditional systems of leadership and customary land ownership patterns. The smallness of some countries leads to limited government interest in promoting local government authorities, which is seen as duplication. There is a need to improve training for decentralized management.

Finance: This problem occurs when decentralization of service responsibilities is not matched by financial arrangements. Often, local authorities cannot collect their own revenue and have limited local revenue sources. They are dependent on higher levels of government for their revenue allocation from the national budget. In Cambodia, this has undermined the legitimacy and capability of the local authorities—the communes. In China, local govern-

1. Roberts and Kanaley, 2006.

2. Brillantes, 2004.

3. For example, Presidential Decree No. 10: Implementation of Regional Autonomy in the Land Sector, Government Regulation No. 25: The Government Authority and Provincial Authority as the Autonomous Government.

ments are faced with huge unfunded mandates. The revenue shortage has implications for fiscal reform, and in the longer term, possibly the creditworthiness of authorities as they seek alternative funding sources. It also calls for a review of the future role of local authorities as they become more pro-active in development.

Lack of awareness: Lack of awareness and understanding of participation, democracy and development is a problem that can hinder stakeholder participation and decentralization efficiency. In Cambodia, for example, the majority of the population is largely unaware of the meaning of the decentralization process introduced in 2002, what the process means for them and their rights. They also lack the capacity and interest to participate for a variety of reasons, including preoccupation with meeting basic needs, fear and distrust of government institutions. Better information for the people is an important aspect for monitoring municipal performance.

Each of these problems could constrain the effective implementation of decentralization. While they may present challenges, some of these problems also present opportunities for restructuring public institutions, policies and legal framework. As noted in Chapter 3, apart from some exceptions (the more developed countries), institutional framework has been generally weak and fragmented in the developing countries. Inappropriate legal framework, corruption and lack of transparency are basic obstacles to effective urban planning and development. They make investment risky. Increasing the efficiency of urban operations requires good urban governance and management. Good governance implies inclusion, integrity, clear functions and delineation of roles and responsibilities and accountabilities, financial sustainability, competent management and positive leadership.

As mentioned above, local and national governments have a critical role in city management and development. They are an important force in developing the urban planning legislative and regulatory framework. The regulatory framework determines the way plans are formulated, implemented and enforced, and usually includes land use regulations such as zoning and development control, land subdivision, standards for planning, building and service provision, and enforcement and appeal mechanisms. In most English-speaking countries, especially former British colonies, this framework is based on the British Town and Country Planning Act of 1947 (see Chapter 3). Accordingly, many of these countries have instituted some form of town planning legislation (see Tables 20 and 21). Planning powers and responsibilities are usually rested within central government rather than at the local level.

Table 20. Current institutional framework for planning

Country	State capital	Year of master plan	Year of strategic plan	Chief national institution in charge of planning	Pertinent laws
China	Beijing	2004 (The Beijing Master Plan 2004–2020)	2006 (The Beijing Outline of the Eleventh Five-year Program 2006–2010)	Ministry of Construction	Urban Planning Law (1990)
Hong Kong SAR, China	Hong Kong	...	...	Planning Department	Town Planning Ordinance
Macau SAR, China	Macau	...	...	Land, Public Works and Transport Bureau	
Mongolia	Ulaan Baatar	2000 (Ulaan Baatar City Development Master Plan up to 2020)	...	Ministry of Construction and Urban Development	Law on Urban Development (1998)

Country	State capital	Year of master plan	Year of strategic plan	Chief national institution in charge of planning	Pertinent laws
Republic of Korea	Seoul	2006 (Four-year Plan of the Fourth Elected City Administration)	...	Ministry for Construction and Transportation	Article 120, paragraph 2 of the Constitution provides for national plans; Basic Act for National Territory (2002); National Capital Region Development Planning Act (1982). Framework Act on National Land, 2002
Brunei Darussalam	Bandar Seri Bagawan	...	...	Ministry of Development	Town and Country Planning (Development Control) Act (1972)
Cambodia	Phnom Penh	(Development Master Plan of Phnom Penh by 2020)	2002 (Directing Diagram of Town Planning of Phnom Penh by 2020)	Ministry of Land Management, Urban Planning and Construction	Law on Country Planning, Urbanization and Construction (1994)
Indonesia	Jakarta	2003 (Jakarta Spatial Structure Plan)	...	...	Spatial Planning Act No.24/1992; National Development Planning System Law No.25/1004
Malaysia	Kuala Lumpur	1972 proposed national master plan	2004 (Kuala Lumpur Structure Plan 2020)	Ministry of Housing and Local Government	Town and Country Planning Act (1976), Town Planners Act (1995)
Philippines	Manila	Revised 2005 (A Physical Development Framework Plan for Metropolitan Manila, 1996–2016)	(Metro Manila Development Plan)	National Economic and Development Authority	Republic Act 7160 provides for the provision of Comprehensive Land Use Plans in accordance with existing law
Singapore	Singapore	1958 (Master Plan)	1971 Concept Plan	Urban Redevelopment Authority, Ministry of National Development	Planning Act Cap 232
Thailand	Bangkok	1999 (Bangkok Comprehensive Plan 1999–2005)	...	Ministry of Interior	City Planning Act (1975)
Vietnam	Hanoi	2001 (Hanoi Master Plan to the Year 2020)	2001 (The 5-Year Socio-Economic Development Plan 2001–2005)	Ministry of Construction, Ministry of Planning and Investment	Land Law, Construction Law, Planning Decree
American Samoa	Pago Pago	...	...	Public Works Department	...
Fiji	Suva	...	...	Ministry of Local Government and Urban Development	Town Planning Act (Cap. 139) 1946, Subdivision of Land Act (Cap. 140), Town Planning (General) Order 1971
Guam	Hagåtña	...	...	Department of Land Management	...

Country	State capital	Year of master plan	Year of strategic plan	Chief national institution in charge of planning	Pertinent laws
Kiribati	South Tarawa	...	...	Central Land Use Board	Land Planning Ordinance (Cap.48)
Marshall Islands	Majuro	...	...	...	Planning and Zoning Act 1987 (10 MIRC Ch 2)
Samoa	Apia	...	...	Ministry of Natural Resources and Environment	Planning and Urban Management Act 2004
Solomon Islands	Honiara	...	...	...	Town and Country Planning Act (Cap 154)
Vanuatu	Port Vila	...	...	...	Physical Planning Act (Cap 193)

... denote no information. No information available on countries not listed.

Source: Websites of various countries/cities.

Table 21. Levels of planning

Country	Planning levels according to the basic planning law	National plan	Regional/ county plans	Municipal/ urban plans	Detailed regulatory plans
China	Five levels: National, state, municipal, district, and detailed plans.	The Eleventh Five-year Program for National Economic and Social Development 2006–2010 prepared by the National Development and Reform Commission	Mandatory regional plans prepared by the Bureau of Urban Planning	Mandatory immediate and annual plans prepared by the Beijing Municipal Institute of City Planning and Design, adopted by the Beijing Municipal Committee and Government	Regulatory, infrastructure and transportation plans; and land utilisation plans; conservation plans
Hong Kong SAR, China	Territorial, local district				Outline Zoning Plans (OZP) prepared by the Town Planning Board; in areas not covered by OZP, Development Permission Area Plans prepared by the Town Planning Board
Republic of Korea	Three levels: National, province/ county/regional, and city/local plans	The Fourth Comprehensive National Territorial Plan (2000–2020) formulated by the National Policy Development Bureau	National Capital Region Development Plan prepared by the National Capital Region Development Council	Mid-term and long-term urban administration plans prepared by the Seoul Development Institute	
Brunei Darussalam		National Development Plan prepared by the Town and Country Planning Department			

Country	Planning levels according to the basic planning law	National plan	Regional/ county plans	Municipal/ urban plans	Detailed regulatory plans
Cambodia	Four: National, provincial, municipal/city and detailed plans	National Development Master Plan prepared by the National Committee of Planning, Urbanization and Construction	Mandatory development master plans drawn up by the Subcommittee for Planning, Urbanization and Construction of each province, and approved by the National Committee of Planning, Urbanization and Construction	Mandatory development master plans drawn up by the Committee for Planning, Urbanization and Construction of Phnom Penh or the equivalent Subcommittee in other municipalities, and approved by the National Committee of Planning, Urbanization and Construction	Prescriptive plans including detailed zoning and urbanistic regulation of districts prepared by the Department of Town Planning, Construction and the Land Register Regional Planning of the Municipality of Phnom Penh
Indonesia	Three: National, regional and local plans	National Development Plans by the National Development Planning Coordination Board; National Spatial Development Plans are prepared by the National Spatial Coordination Board	Regional Development Plans prepared by the Provincial Development Planning Agency	Local Development Plans prepared by the Local Development Planning Agency	
Malaysia	Four: National, State, City and (optional) detailed plans	Mandatory National Physical Plan prepared by the Federal Department of Town and Country Planning (note: this plan is confined to peninsular Malaysia only as the states of Sabah and Sarawak are governed by different planning legislations)	Mandatory Regional Structure Plan prepared by the state Town and Country Planning departments	Mandatory Structure Plans, consisting of policy statements and general proposals, prepared by the Town and Country Planning Department	Detailed local (zoning) plans or Action Area Plans prepared by the local Town and Country Planning Departments at their discretion
Philippines	Five: National, regional, provincial/city, local/municipal physical framework plans and local detailed plans; development plans are also prepared at each level of the planning system	Mandatory National Framework for Physical Planning (2001–2030) prepared by the National Land Use Committee	Mandatory Regional Physical Framework Plans; and mandatory Provincial Physical Framework Plans prepared by the Office of the Provincial Planning and Development Coordinator	Mandatory City/municipal Comprehensive Land Use Plans prepared by the Office of the City/Municipal Planning and Development Coordinator	Barangay Development Plans prepared by Barangay Development Councils, and other area specific plans, eg heritage area plans
Singapore	Two: National, regional	Concept Plan	Master Plan (development guide plans)		Master Plan (development guide plans)

Country	Planning levels according to the basic planning law	National plan	Regional/ county plans	Municipal/ urban plans	Detailed regulatory plans
Thailand	Five: National, regional, provincial, local plans and detailed project plans	National spatial plans prepared by the Ministry of Interior; National Economic and Social Development Plan prepared by the National Economic and Social Development Board	Regional and Sub-regional Plans prepared by the Department of Public Works and Town and Country Planning, Ministry of Interior; corresponding Development Plans prepared by the National Socio-Economic Board	Comprehensive Plans prepared by the Department of Public Works and Town and Country Planning, with the exception of The Bangkok Comprehensive Plan which is prepared by the local government	Detailed Project Plans, for example Urban Renewal Plans and Urban Development Plans; district plans and specific development plans
Vietnam	Four: National, regional, city/provincial and local plans	Orientation of Comprehensive National Urban Development Plans prepared by the National Institute of Urban and Rural Planning; National Strategy for Socio-Economic Development (2001–2010) prepared by the Ministry of Planning and Investment	Regional Spatial Plans prepared by the National Institute of Urban and Rural Planning; regional socio-economic plans prepared by the regional authorities for Planning and Investment	Master Plans prepared by the National Institute of Urban and Rural Planning (except for the three largest cities which have their own planning institutes); city/provincial socio-economic plans prepared by local authorities for Planning and Investment	Detailed plans of districts, wards, industry zones, or development projects
Fiji	One: Town Planning Areas (for example towns, cities or rural areas)			Town Planning Schemes prepared by City or Town Councils and approved by the Director of Town and Country Planning	
Kiribati	Two: General land use plans and detailed land use plans			Mandatory General Land Use Plans prepared by the Central Land Use Board	Detailed land use plans prepared by local Land Use Boards
Marshall Islands	One: local plans			Local plans prepared by the local government Council	
Samoa	Five: National, regional, district, village, and site specific plans	Discretionary National Sustainable Management Plans prepared by the Planning and Urban Management Agency, and approved by the Planning and Urban Management Board	Discretionary Regional Sustainable Management Plans prepared by the Planning and Urban Management Agency, and approved by the Planning and Urban Management Board	Discretionary Sustainable Management Plans prepared by the Planning and Urban Management Agency, and approved by the Planning and Urban Management Board	Village or site-specific Sustainable Management Plans prepared at the discretion of the Planning and Urban Management Agency, and approved by the Planning and Urban Management Board

Country	Planning levels according to the basic planning law	National plan	Regional/ county plans	Municipal/ urban plans	Detailed regulatory plans
Solomon Islands	One: Local Planning Schemes			Mandatory Local Planning Schemes for Local Planning Areas prepared by the local Town and Country Planning Board	
Vanuatu	One: Physical Planning Area plans			Mandatory plans for declared Physical Planning Areas prepared by Municipal or Local Government Councils	

Note: No information available on countries not listed.

Source: Websites of various countries/cities.

Singapore presents a typical prototype of the British-style regulatory framework, and of an institutional framework where land use planning is taken seriously and plans are implemented with relatively high levels of compliance with development control and planning regulations. In recent years, Singapore has increasingly gained recognition as a good practice and model city for urban planning and management. Its public housing new town has been commended in the United Nations World Habitat Award 1991 as an outstanding project that offers a practical and imaginative solution to housing problems. Urban planners and government officials from developing countries in the region and beyond visit Singapore to learn its urban planning and management experience under the Singapore government technical co-operation and assistance program.

Singapore has a national planning authority, the Urban Redevelopment Authority under the Ministry of National Development that handles every aspect of planning from strategic long-term planning to day-to-day development control (Tables 20 and 21). Development of land in Singapore is subject to statutory control. The statutory basis of this control is first set out in the 1959 Planning Ordinance, and now contained in the Planning Act Cap 232 (1998 Rev. Ed).⁴ Despite several amendments and revisions to the Planning Act over the past decades, the basis of development control has remained the same, and the definition of development is in *pari materia* with that contained in the British 1947 Act.⁵ In exercising development control, the planning authority is required to have regard to the contents of the development plan.

Following closely the British development plans of 1947, a Master Plan was prepared for Singapore in 1955 and approved by the colonial government in 1958. The 1958 Master Plan was the first comprehensive development plan for Singapore. As is in the tradition of British master plan, the Singapore 1958 Master Plan was detailed and precise. As set out in the 1959 Planning Ordinance, the Master Plan was a statutory plan governing the use of land for a period of 20 years with provision for five-yearly reviews, to be approved by the Minister after an opportunity for objections from anyone affected by it. Its objectives were basically to promote an overall orderly physical development of Singapore, provide a general framework

4. Singapore was founded by the British in 1819 and was under British colonial administration till internal self-rule in 1959, merged with Malaysia in 1962, and became independent in 1965.

5. See Motha and Yuen, 1999.

of proposed land uses to guide future development, and ensure the optimal usage of land. The 1958 Master Plan introduced two new concepts in the control of land use: land use regulation through zoning and control of intensity of development through density (for residential use) and plot ratio (for non-residential use). It also introduced the British planning ideas of new town and urban containment.

Even though changes in the plan could be made through a legal process of public advertisement and inquiry, the 1958 Master Plan with its detailed and rigid land use zoning proposals proved incapable of dealing with the rapid post-independence urban changes and development during the 1960s. The post-independence government's many large-scale development programs (such as public housing and industrial development) required departures from the density and locational standards stipulated in the Master Plan. This led to the lifting of Master Plan controls on public sector development, and the search for a more responsive instrument to facilitate long-term planning.

The culmination of the process was a change in planning approach and strategies, moving from a conceptualization born of the British 1947 style of development plans to the new strategic planning of the Singapore Concept Plan in 1971. Unlike the Master Plan which concern is over the production of the plan, the focus of the Concept Plan is on the process of defining vision and strategies to affect the strategic shifts necessary to meet growing needs, changing circumstances and available opportunities as they arise, that is, on being flexible and responsive to the needs of all sectors. Retooling is necessary to staying relevant and ahead of challenges. The Republic of Korea, for example, has recently revised its planning legislation to better meet the new challenges of sustainable development.

Before the revision, land development in the Republic of Korea has been subject to around 90 individual legislations based on the Act on Comprehensive Plan of National Land Construction, the Act on Management of Use of National Land and the Act on City Planning for regulating the use of land and approving development projects. This framework does not make for consistent and efficient planning and management of land, and has no ability to respond to new challenges of urban development. Development often proceeds without consideration of the environment. Since 2002, the Republic of Korea has revised the legislative framework and reorganized it as the Framework Act on National Land, enforced in January 2003, aiming to prevent sprawl development and promote sustainable development. The planning of land is streamlined into comprehensive planning of national land, comprehensive province planning, comprehensive county planning, regional planning and sectoral planning in accordance with the Framework Act on National Land. Comprehensive planning is a major tool used by governments to control, monitor or guide urban development in the Republic of Korea as elsewhere.

A similar pattern of implanting regulations, standards and administrative procedures, and reliance on rigid master plans frames urban planning across many other countries in the region, former colonies as well as transitional economies alike, often with less resources and capacity to make changes, and more fragmented legislative and organizational structure (Tables 20 and 21). These regulatory frameworks emanate largely from a different time (the colonial era) and/or country (usually western), frequently based on assumptions of slow-steady growth (see Chapter 3). Also, as Singapore's experience shows, often, they have not been revised in many decades. Yet, they continue to impact on current and future urban land and housing markets and private sector investment decisions. Thus, though the broad objective of these urban planning and development regulations is to ensure the orderly development of urban areas, it has not really happened.

The high and increasing proportion of slums and informal settlements in urban areas would seem to indicate that past and current regulatory frameworks have failed to achieve the objective of planned urban growth. In many urban areas, the regulatory framework has been blamed for imposing planning regulations, standards and administrative procedures designed for different conditions on populations that are invariably too poor to understand and conform; for putting legal land and shelter out of the reach of poor households.⁶ In Vietnam, any amendment to the Master Plan is a lengthy bureaucratic process involving many authorities. In China, some local governments and government departments have ignored the plans or statutory procedures by approving projects without authorization or modifying approved plans without authorization. A common critique of Chinese master planning is that its top-down system has resulted in plans that are too rigid, static and easily outdated to cater to actual market demand need, particularly that of the private sector. Complaints also persist to the inaccurate nature of predictions made in these plans. Master development plans in these cases have failed to play their role in guiding urban development.

Elsewhere, there are no national policies or strategies for managing urban development. Vanuatu, for example, has no national policies or strategies and the public and private sectors have limited capacity for this task. There is no legislation that provides for national oversight or direction on matters of urban infrastructure, housing, policy and/or poverty. National policy on these matters is indicative only. Even though there are a number of urban planning statutes that establish the legal townships of Port Vila and Luganville (Municipalities Act No. 5 of 1980) and the mechanism for declaring areas subject to physical plans for development control (Physical Planning Act No. 22 of 1986), the physical plans for its largest towns, Port Vila and Luganville, have not been adopted, largely because of doubt over their appropriateness.

In addition to unrealistic and outdated plans, another reason for why plan implementation has fallen behind is the lack of capacity—human and financial—at the national and local levels (see Section 4.2). To make matters worse, the administrative boundaries of Port Vila Municipality and Shefa Province create problems for urban growth management because they are based more on whether the state or someone else owns the land rather than on urban planning parameters. In many countries in the Pacific sub-region, official governance structures exist alongside tribal governance systems. The chiefs of ethnic tribes generally possess the power to affect official government decisions, thus weakening government authority.

Another institutional dimension to consider is the impact of foreign donors. Pacific institutions typically have a substantial reliance on aid from foreign donors.⁷ As it is not uncommon for donors to include conditions governing the use of funds, Pacific institutions are often faced with contradicting conditions that need to be fulfilled. This diminishes the local government's authority to prescribe development priorities. As it is the responsibility of Pacific governments to organize foreign funding, these governments also frequently face challenges in coordination related to the planning process. For example, situations exist where a single infrastructure project is funded and constructed by a number of different donors, with each responsible for a part of the project. Effectively, this system of reliance on foreign aid compromises the formulation of comprehensive strategies and plans on the part of Pacific governments. In fact, it can be considered a disincentive.

However, it should be noted that an increasing number of multilateral and bilateral aid agencies now require major development project in the region to also be justified in terms of good governance. This will usually involve an element of legal institutional reform, anti-

6. Duncan, 2007.

7. Connell and Lea, 2002.

corruption initiatives or strengthening of civil society. Apart from Hong Kong SAR and Singapore, which are rated among the world's cleanest economies, corruption prevails in many of the other countries. In some cases—such as Indonesia, the Philippines and Vietnam—weak law and systemic issues of lack of transparency, accountability and mechanism to stem corruption complicate the problem and its reform. International estimates indicate that 80 per cent of deforestation in the region is because of illegal logging and corruption.

If left unchecked, the current pace of illegal logging in the region could result in a loss of 6.6 million hectares of forest by 2020, in countries, ranging from Cambodia, Vietnam and Indonesia to Myanmar, Lao PDR and Papua New Guinea. Some countries—such as China and Malaysia—have begun to take action against corruption to enhance integrity and global competitiveness. Malaysia has introduced a chapter, 'Good Governance for Development' in the 9th Malaysia Plan (2006–2010). This is the first time that such an issue has been included in Malaysia's national planning. It offers an example of how development planning can take good governance into account.

4.2. Other constraints to plan implementation

Apart from the mismatch of old standards and new needs, and weak and poor performing institutions, a number of other constraints hinder plan implementation and the city's ability to bring urban development into focus. Two are highlighted here. The first is the recurring issue of limited capacity. As developing countries, these nations often lack the technical personnel and knowledge necessary for plan implementation. While this occurs to some extent at the central government level as well, it is generally more serious at local government levels. In the more extreme example of Cambodia, the absence of expert knowledge and personnel has culminated in the effective suspension of urban land use planning after the cessation of international funding in the late 1990s. Consequently, there is no urban housing policy in Cambodia.

Developing capacity is an immediate task. In many developing countries, because of limited capacity, coupled or not with political expediency, local authorities often fail to guide the development of new settlements proactively or to contain their further growth and consolidation at an early stage. These settlements are left for several years until the apparent violations develop into a sense of de facto regularity among the population, and subsequent attempts to ensure compliance create tension and conflict. As mentioned earlier, the situation is complicated by a general lack of awareness, knowledge and understanding of rules and regulations within the community.

The second is land ownership. In many developing countries, legal land ownership—often a legacy of past colonial administration—is held by a powerful minority and often used for the marginalization of poor people, thus impeding efficient planning and development. In the Philippines, for example, colonial rule has created an oligarchic land tenure system, and there have been many instances of private sector land hoarding, resulting in the development of *ad hoc* urban areas. Some cities in the Philippines have found a way around the dominance of single land ownership problem by adopting usufruct legislation in application to unused land, moving from traditional single owner tenure relationships towards community-based management and applied this to forest land, and housing and community development for the poor.

In the Pacific sub-region, colonial property ownership institutions also posed a problem to plan implementation, of a different kind. More than 90 per cent of land in the Pacific sub-region is held under indigenous customary laws, which are at odds with imported western planning theory. These laws are often complex in nature, making their understanding and

incorporation into western-style planning difficult. In Papua New Guinea alone, more than 95 per cent of land is customary land and cannot be sold or mortgaged. To complicate matters, customary land is usually held by a community of people as opposed to a single individual. This community of owners is usually vague, leading to land management and acquisition issues where owners are unable to agree upon a satisfactory usage for their land. For governments, this has impeded the spread of urbanization and the provision of public infrastructure. Papua New Guinea has tried to get around the land problem by private treaty.

Land reform is not an easy task. It requires the participation of all stakeholders; it has to reflect their interests. If not, land reforms can set the stage for land grabbing and power abuse as occurred following the 1989 land reforms of Cambodia. Land reform and land legislation should provide legal protection to establish the security of land tenure, which is a fundamental basis for the reduction of land disputes, and facilitate land management by clarifying the ownership regime for land. The 2001 Land Law of Cambodia seems to have considered these elements. There is, however, no one approach to land reform that is applicable to all countries.

In China where land use rights are separated from ownership, a different set of land problem has presented itself with China's transition to market economy. After the 1980s, urban land use rights could be transferred in the land market, making land the major resource by which local government could raise revenues to finance urban infrastructure and redevelopment. Dependence on revenues from the lease of state-owned land is, however, not sustainable over the long term for two reasons. First, because all leasehold fees are collected once at the beginning of the lease term, generally 40 years for commercial property, 50 years for industrial property and 70 years for residential property. Second, without a large source of annual revenue from property tax or other fees, local governments need to find more land to develop in order to generate new revenues. As a result, many local governments are motivated to create an oversupply of land, thus accelerating the acquisition of rural agricultural land, urban sprawl and the growth of peri-urbanization.

Cities need to take a longer-term view and develop a municipal policy for its land and finance. Peri-urban areas need to be better planned if they are to be more effective in promoting sustainable pro-poor urban development. The ambit of interventions has to expand beyond slum upgrading and tenure regularization to defining the urban development framework within which access to land and land development rights for the poor becomes possible. To prevent slum formation and upgrade existing slums, it is essential that the regulatory framework be reviewed in order to respond to the needs, priorities and affordability concerns of all urban residents, in particular, poorer communities.

5. Participation in Urban Planning

This Chapter will provide an indication of the extent to which the planning process is inclusive of relevant stakeholders and communities. It will also identify the main forms and practices of participatory planning within the region.

5.1. Participation culture

While some countries have recognized the need for public participation and have made steps to incorporate this into their planning processes, a number of countries remain where stakeholders play no part in the planning process. As Table 22 indicates, participatory tradition in most countries in the East and South-east Asia sub-regions is generally weak, with the exception of the Republic of Korea, Mongolia, and Indonesia. Although not everyone may agree with the Freedom House survey and methodology, the democracy scores indicate that most former centrally planned economies are weak in participatory tradition though the situation has been improving, especially in the aspect of civil liberties (as measured by Freedom House). Mongolia is an interesting case. Since 1990, Mongolia has moved swiftly from a highly centralized, planned economy and polity characterized by restricted political activities and citizens' participation to an open, democratic and market-oriented society. Most countries in the Pacific sub-region score well on the Freedom House democracy indicators too, with a few exceptions such as Fiji, due to political and ethnic instability.

Table 22. Democracy scores (2007)

Country	Political Rights*	Civil Liberties*	Electoral Democracy**
China	7	6	No
DPR Korea	7	7	No
Hong Kong SAR, China	5	2	...
Macau SAR, China	...	...	...
Mongolia	2	2	Yes
Republic of Korea	1	2	Yes
Brunei Darussalam	6	5	No
Cambodia	6	5	No
Indonesia	2	3	Yes
Lao PDR	7	6	No
Malaysia	4	4	No
Myanmar	7	7	No
Philippines	4	3	No
Singapore	5	4	No
Thailand	6	4	No
Timor-Leste	3	4	Yes
Vietnam	7	5	No
American Samoa	...	...	...
Cook Islands	...	...	...
Fiji	6	4	No
French Polynesia	...	...	...
Guam	...	...	...

Country	Political Rights*	Civil Liberties*	Electoral Democracy**
Kiribati	1	1	Yes
Marshall Islands	1	1	Yes
Micronesia (Federated States of)	1	1	Yes
Nauru	1	1	Yes
New Caledonia	...	...	...
Niue	...	...	...
Northern Mariana Islands	...	...	...
Palau	1	1	Yes
Papua New Guinea	3	3	Yes
Pitcairn	...	...	...
Samoa	2	2	Yes
Solomon Islands	4	3	No
Tokelau	...	...	...
Tonga	5	3	No
Tuvalu	1	1	Yes
Vanuatu	2	2	Yes
Wallis and Futuna Islands	...	...	...

* Rating of 1 through 7, with 1 representing the highest and 7 the lowest level of freedom.

** Freedom House survey assigns the designation 'electoral democracy' to countries that have met certain minimum standards such as multiparty political system.

... denote no information.

Source: Freedom House, website: <http://www.freedomhouse.org/>.

Often, public participation is initiated by external factor. As mentioned in earlier Chapters, countries with British-style urban planning system have underscored the importance of public participation in urban planning through provisions governing the preparation of statutory development plan in the planning legislation. In Singapore, for example, the statutory Master Plan has to be publicly exhibited before approval under its Planning Act. Participation of stakeholder is increasingly recognized as an integral part of plan formulation and implementation, especially in the areas of place identity and urban conservation.¹ Similar procedures are found in other former British colonies.

In Malaysia, the element of public participation has been incorporated in the Town and Country Planning Act 1976, particularly with regard to the preparation of the Structure Plan. According to Section 13 of the Act, in preparing the Structure Plan, local planning authorities must consider representations from the public. Adequate publicity and access to both the draft Structure and Local Plans would have to be made available to the general public. Under the Act, the State Planning Committee would receive all objections from the public against the Structure Plan, and a public local inquiry would be formed to study these objections and suggestions. Both the plans may be changed and modified after taking into consideration the views of the public. In this context, the Town and Country Planning Act of 1976 may be viewed as an important cornerstone in the history of the development of public participation in Malaysia's urban planning.

Likewise, the planning system in Hong Kong SAR also includes provisions for public participation much in line with those in western countries in its planning legislation.² For

1. Soh and Yuen, 2006.

2. Bristow, 1984.

Table 23. Status of Local Agenda 21 Campaigns in 2001

Country	Number of LA21s	National Campaign
China	25	Yes
Mongolia	22	Yes
Republic of Korea	172	Yes
Indonesia	8	No
Malaysia	9	No
Philippines	28	No
Singapore	1	No
Thailand	21	No
Vietnam	20	No

Source: Source: ICLEI, 2001.

example, public consultation is sought in the drafting of its Outline Zoning Plan. Specifically, plan drafts are publicized through media channels (for example, the newspapers) for two months in an effort to gain public notice. During these two months, members of the public are welcome to submit, to the drafting board, their representations, which would then undergo due review by the Town Planning Board. This is a reasonably democratic process as the Board may advance amendments to the draft plan based on submitted representations.

In the current period, a common catalyst for inclusivity in urban planning is regional/international program. For example, the Participatory Poverty Assessment Scheme pioneered by the ADB in countries such as Cambodia, Lao PDR and Thailand aims, through consultation of poor people, to engender a better understanding of poverty to aid the formulation of effective poverty reduction strategies. While response from local governments has been varying, in Lao PDR the local government has incorporated the program's findings into its development plans. Another important global initiative is the notion of Local Agenda 21, which was adopted at the 1992 Rio Earth Summit. The Agenda 21 Campaign promotes a participatory, long-term, strategic planning process that helps municipalities identify local sustainability priorities and implement long-term action plans, supporting good local governance and mobilizing local governments and their citizens to undertake such multi-stakeholder process. These programs can be anticipated to open more public involvement in the planning process.

More than 6400 local governments in 113 countries worldwide have responded to the goals of Agenda 21 by developing and implementing 'local' Agenda 21s.³ A small number of these countries come from this region (see Table 23). Nine countries in East Asia and South-east Asia are involved in Local Agenda 21, and only three countries (all in East Asia) have a national campaign for Local Agenda 21. None of the countries in the Pacific sub-region had a Local Agenda 21 Campaign when the survey was conducted in 2001.

The Republic of Korea is most active in Local Agenda 21 supported by a national campaign, which is in line with the level of democracy as reported by Freedom House (see Table 22). China, with the highest number of urban agglomerations in the region, has limited Local Agenda 21 implementation though there is a national campaign. Only one city in China is a member of the International Council for Local Environmental Initiatives (ICLEI) (see Table 24). ICLEI is an international association of local governments, and national and regional local government organizations that have made a commitment to sustainable development. It offers technical consulting, training and information services to support local

3. ICLEI, 2001.

Table 24. Cities committed to Local Agenda 21

Country	Number of cities	City as member of ICLEI
China	1	Shenyang
Republic of Korea	25	Ansan, Bucheon, Buk-Gu, Busan, Changwon, Daegu, Damyang, Gangneung, Gangwon, Gimpo, Gumi, Gwangju, Jeju, Jeongseon, Jeonju, Jinhae, Seoul, Siheung, Sokcho, Suncheon, Suwon, Uiwang, Ulsan, Wonju
Indonesia	7	Balikpapan, Bogor, Cilegon, Medan, Semarang, Surabaya, Yogyakarta
Philippines	16	Baguio, Batangas, Dagupan, General Santos, Iloilo, Linamon, makati, Munoz, Muntinlupa, Naga, Puerto Princesa, Quezon, San Fernando (La Union), San Fernando (Pampanga), Tubigon, Tuguegarao
Thailand	3	Bangkok, Muangklang, Phuket
Total	52	

Source: ICLEI, website: <http://www.iclei.org/>.

government in the implementation of sustainable development at the local level, which is a useful resource for countries that are newly into participatory planning.

Basing on available information, the experience of Local Agenda 21 is summarized in Table 25. Political commitment is an important driver of inclusivity in urban planning. Enabling legislation is its modus operandi. Take China. Its early public participation instances have generally occurred in Shenzhen as the city is effectively the experimental site for the development of China's urban planning system following China's transition to market economy. As Shenzhen seeks to emulate the established Hong Kong model, Shenzhen has adopted a public consultation procedure similar to that of Hong Kong SAR outlined earlier. Public participation was formally recognized and institutionalized with the enactment of the Regulations on Urban Planning of Shenzhen in 1998, which ordained the approaches and methods of public participation relating to both master planning and statutory planning.

Table 25. Status of Local Agenda 21 in selected countries (2002)

Country	Status of Local Agenda 21
China	The Government supports Local Agenda 21 initiatives and there are at least 21 Local Agenda 21s. Women and youth fully participate in local decision-making. As great disparities exist in terms of natural conditions, economic development, and urbanization in various parts of the country, China formulates different action plans for sustainable development that are suited to the local situations and conditions. By the end of 1996, two-thirds of the 30 provinces, autonomous regions, and municipalities have organized their respective Leading Groups and established working offices to implement their Local Agenda 21.
Fiji	The Government supports Local Agenda 21 initiatives. While local authorities have not formed Local Agenda 21, they have adopted policies in pursuance of sustainable development. They have been guided by national policies, for example, on the preservation of mangroves, the conservation of wildlife and forest, coral reefs, waste disposal, littering in public places and pollution of the air, rivers and seas.

Country	Status of Local Agenda 21
Malaysia	<p>The Government launched the Local Agenda 21 program in 1999 to strengthen sustainable development activities at the local level by involving local authorities, local communities and other community-based organizations. Miri, Petaling Jaya, Kerian, Kuantan were the four pilot sites for projects. In addition, a Sustainable Urban Development Project was launched in Kuching and Kota Kinabalu, to improve the management of wastes, land use and natural resources. To improve the management and enforcement capabilities of local authorities, a total of 11 District and Municipal Councils were upgraded and 699 additional posts were approved during the Plan period. Efforts were carried out to encourage greater community participation in managing, improving and resolving urban environmental issues together with the local authorities. In this regard, local authorities provided better human settlement facilities and improve the quality of life, in line with the Habitat Agenda and Local Agenda 21. The use of Information and Communications Technology, training of personnel, sharing of best practices and international networking further enhanced the effectiveness and efficiency of local authorities.</p>
Mongolia	<p>The Government plans to support Local Agenda 21 initiatives.</p>
Republic of Korea	<p>The Republic of Korea has 16 large communities (1 capital metropolitan city, 6 metropolitan cities and 9 provinces) and 232 local governments (smaller cities, city districts, and counties). The government is actively promoting Local Agenda 21 initiatives through such measures as the formulation of 'Local Agenda 21 Guidelines', and the steady administration of education and publicity. Approximately 90 per cent of the local governments (223 out of 248) have adopted the Agenda as of March 2002. For the comprehensive evaluation of implementation of Agenda 21 since the Rio Conference, the Ministry of Environment has conducted nationwide analyses of the implementation of Local Agenda 21, developed and disseminated assessment indicators and relevant manuals with a view to enhance self assessment of the progress and to having the results reflected in the relevant process. In 2002, the Ministry of Environment plans to award an honor, give an incentive to some selected number of institutions based on the evaluation of progress in implementing Agenda 21, and to publicize good practices widely by disseminating relevant information in publications. Furthermore, in June 2000, the 'Korea Council for Local Agenda 21' was established to foster exchange of information and cooperation between local governments.</p>

Source: United Nations Department of Economic and Social Affairs, 2002.

As inclusivity is a recognised dimension of good governance (see Chapter 4), countries where the planning process has remained largely top-down and exclusive of the community such as Vietnam are also seeing action to include public participation. Vietnam has since 2004 reformed its legislation to provide for the review of plans by elected People's Councils, introduce for the first time public consultation during the planning process, and the requirement of plans to be available for public inspection. Even though some of these efforts may seem passive, it would appear that more not less public participation is on the region's urban planning agenda if countries desire to improve their governance and competitiveness rating.

5.2. Participation practices

Even when there is government support, there are other barriers to effective participation such as:

- **Diversity:** As outlined in Chapter 1, a key characteristic of the region is its diversity. Diversity exists in its inhabitants. There are different ethnic and religious groups. There are people who have lived in cities for years. Others are recent migrants. Effective public participation will have to consider all of the diversity so that urban planning can effectively deliver services to the different sections of society.
- **Limited capacity and general apathy:** Much of the population is poor. Many are not educated and have limited capacity in participation, not to mention interest, especially when there are more overwhelming daily survival preoccupations. While the NGOs and community-based organizations could provide voices in the participation process, they too have limited capacity in some developing countries. The capacities of NGOs vary widely from city to city. In Manila, the Philippines, for example, there is a wide range of very well respected operational NGOs that have been very useful in reaching out to the community. Elsewhere, for example, in Indonesia, the NGO sector is far less developed, and outside Jakarta, many of the NGOs have limited skill levels.

Therefore, strategies of engagement need to consider, and be tailored to the cross-section of the community and also their capacity. In many urban areas, especially outside major cities, knowledge and skill levels of the community, NGOs and individual people, are often very limited. Effective participation may entail having to upgrade the capacity of these groups and to reach out to those who may otherwise remain silent. Even though community activity can be more powerful when organized through group action, there is often no substitute for direct contact with the people. As illustrated by western experiences, real participation is often difficult to achieve, and remains a challenge in the region.

Participation can take many forms, from public exhibitions and meetings to active participation of organized civil society groups as in the People's Forum in Malaysia and Urban Forums in Indonesia cities to referendums in the Philippines, and the ability to decide on spending budgets at the local level as in 'participatory budgeting' where citizens decide priorities on a substantial part of the local government budget. To illustrate, in Malaysia, to develop community-based indicators for sustainability and liveability (these indicators are then applied to the formulation of sustainable development policies and incorporated into Penang's strategic plan), public consultation in the Sustainable Penang Initiative has taken the form of a series of roundtables, and more recently in the form of a People's Forum.⁴ These programs have inspired similar ones in Medan Bagus, Indonesia, and Iloilo, the Philippines.

In the Philippines, where enlightened local governments have been a crucial factor in the participation culture,⁵ a range of participation techniques have evolved. An example is Subic Bay in the Philippines, which incorporated extensive public participation at all steps of the planning process to transform the city.⁶ The mayor and other local officials organized discussion groups for residents to voice their opinions, with these opinions contributing to the formulation of a master plan that is aimed at transforming the town into a model city. The city's residents were called upon to contribute to the city's development, and were involved in the implementation of the city's development policies. Another example from the Philippines is the Naga Speed program, which provides local governments with a mechanism to elicit public participation in the form of referendums. This allows the public to participate in policy-making. Needless to say, there is no universal model for public participation in planning since

4. Hamid et al, 2000.

5. Robredo, 2004.

6. Hamid and Martin, 1999.

each will need to be structured in response to the specific political, social, and economic environment of each city.

Even though public participation remains a challenge and evolving, there have been several interesting developments that can go some way towards building community familiarity and capacity in participatory processes such as,

- **Community-driven development (CDD):** This is being implemented in support of basic services provision in a number of countries, prominently in Indonesia and the Philippines. The CDD approach is focused on participatory, demand-responsive support to defined communities in which poor people and their institutions are treated as active partners in development. These projects usually involve active stakeholder participation at all levels of the planning process, with communities usually solely responsible for the planning, implementation, monitoring and management of these projects. In Indonesia, the success of such community-driven housing and infrastructure projects as the Kecamatan Development Program has spurred the launch of the National Community Empowerment Program (PNPM) in 2007. Community-driven programs have also been activated in post-disaster areas like the North Java Flood Control Sector Project, the Urban Poverty Project, after the 2006 earthquake in Yogyakarta, and the Re-Kompak (Community Based Settlement Rehabilitation and Reconstruction) program in Aceh and Nias, which helped to rebuild not only vital infrastructure and housing, but also the community after the 2004 tsunami. Over the course of these projects, focus group discussions, workshops and interviews were conducted involving the affected communities. The communities were able, through the consultation process, to not only contribute information and voice their opinions, but also to make decisions pertaining to the project. The role of government agencies in such projects has been one of facilitation and co-ordination.
- **Sustainable Cities Programme:** International agencies such as the World Bank and United Nations have been developing participatory awareness and capacity through their Cities Development Strategy and Sustainable Cities Programme.⁷ The latter program now supports 36 demonstration cities in seven countries in the region—Republic of Korea, Mongolia, China, Thailand, the Philippines, Vietnam and Papua New Guinea. The program mainly works through the development of sustainable urban environment by testing ways to integrate environmental concerns into urban development decision-making, building capacities in urban environmental planning and management and promoting a broad-based participatory process.

7. von Einsiedel, 2004.

6. Urban Planning and Sustainable Development

This Chapter will discuss the role of urban planning in promoting sustainable urban development within the study region. It will discuss with examples how urban planning is dealing with key environmental issues such as urban greening, climate change and resource depletion as well as short-term and local environmental issues. The role of urban planning in heritage conservation will also be discussed.

6.1. Planning sustainable urban development

How urban growth is planned and managed has enormous implications for the region's environmental management and sustainability. Unplanned and chaotic urbanization increase pressure on the environment, leading to environmental degradation, social, ecological and economic instability in many countries around the world. As discussed in Chapter 2, rapid urbanization brings a pressing need to review cities' environmental situation, and initiate more sustainable urban development. The urgency is heightened by global interest in sustainable development, increasing evidence on climate change, and local vulnerability to natural disasters. Several countries in the region are particularly vulnerable to natural disasters such as earthquakes, cyclones, drought, floods and tsunamis (see Chapter 1). The 2004 tsunami in the Indian Ocean region and the 2008 Nargis cyclone in Myanmar and earthquake in Sichuan, China, further accentuate the need for environmental conservation, and greater vigilance in disaster prevention and preparedness.

In recent years, a growing number of countries are beginning to recognize the symbiotic relationship between environment and economy, put sustainable development high on the agenda, and take individual as well as collaborative action on reducing greenhouse gas emissions and improving energy efficiency. Much of the action at the city and state level is manifesting in urban planning and land policy. An increasing number of countries in the region have begun to promote environment and quality of life in the planning agenda. Initiatives underway in cities include participating in the global movement on sustainable development, assessing the state of their environment, entering into regional and international environment agreements and developing environmental programs with international help,¹ policy development to identify the goals and mechanisms for implementation of sustainable development, improving environmental protection and energy efficiency, instituting sustainable transport policies, and planning new eco-precincts and cities. In 2004, DPR Korea and United Nations completed a first-ever assessment of the state of the country's environment.² China has started to develop eco-cities.³ Maintaining a healthy and sustainable environment will become more important.

The creation and implementation of environmental policy is commonly the task of high-level policy administration—the Ministry of Environment—as in the case of the Republic of Korea, China, Singapore, Indonesia, Lao PDR, Malaysia, the Philippines, Thailand, Vietnam and Papua New Guinea.⁴ In some cases, the environment ministry deals with environmental matters in connection with other related matters such as water resources (Singapore), natural resources (Malaysia) and conservation (Papua New Guinea). Most countries appear to have some form of environmental legislation that covers traditional areas of environmental concern

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1. World Bank, 2005b; ADB, 2007.
 2. BBC News, 2004.
 3. The Guardian, 2006.
 4. Lohani et al, 1997.

like air and water quality.⁵ Since the 1990s, some countries—such as Hong Kong SAR, Indonesia, Malaysia and the Philippines—have also enacted special legislation introducing environmental impact assessments as a macro level control on development projects. Some Pacific countries, for example, Tonga have also introduced environmental impact assessments.

Multilateral institutions play an increasingly important role in the region's sustainable development. An example is the Asia-Pacific Economic Cooperation Council Senior Officials' (9–10 July 1996) and Ministerial Meetings (11–12 July 1996) on Sustainable Development, from which major outputs included the Ministerial Declaration and Action Program on Sustainable Development. The documents essentially embody the need to advance cooperation on several major sustainable development themes: sustainable cities/urban management, clean production/clean technology, and sustainability of the marine environment.

Countries in east ASEAN growth area—Brunei Darussalam, Indonesia, Malaysia and The Philippines, for example—have sought international assistance to coordinate regional natural resource management and strengthen environmental management for sustainable development. Under a recently approved ADB project,⁶ these countries will work together on joint environmental protection activities, particularly in border areas, and joint investment projects in forestry, fishery, minerals, and energy to foster complementary resource use among member countries so as to strengthen the link between environmental protection and economic growth, and bring more coherence and synergy to multi-country agreements, plans and implementation mechanisms. In cases of trans-boundary environmental problems, a coordinated regional effort offers a more effective solution than individual localized endeavours.

Under the framework of ASEAN, South-east Asian member countries have developed a Strategic Plan of Action on the Environment with the objectives of introducing policy measures and promote institutional development that encourage the integration of environmental factors in all developmental processes both at the national and regional levels. The plan also establishes long-term goals on environmental quality and works towards harmonized environmental quality standards for the ASEAN region, harmonizes policy directions, enhances operational and technical cooperation on environmental matters and undertakes joint actions to address common environmental problems, and takes steps to integrate sound trade policies with sound environmental policies.

Many countries in the region are highly reliant on natural resources.⁷ However, these natural resources are increasingly depleted through rapid urbanization, and inefficient resource use and management. Rapid economic development over the past decades has been achieved at considerable expense to the environment. For example, in South-east Asia, Indonesia's deforestation rate practically doubled between 1985 and 1997, resulting in the Indonesian government instituting measures to discourage illegal logging by poor residents. Deforestation is a growing problem where wood is used for cooking. Pollution is widespread. At the operational level, pollution issues are often dealt with by instituting a system of levies on the activities that cause the environmental damage. In China, for example, a pollution levy system has been introduced on the industrial sector since 1982 that today applies to about 200 substances. However, the lack of power of enforcement institutions and the absence of proper indexing for levies have affected the efficiency of such measure.

5. See Lohani et al (1997) for further discussion of these legislations.

6. ADB, 2008d.

7. World Bank, 2005b.

Although much effort is directed to controlling air and water pollution, the pollution of soil and groundwater has been given little attention. In the Philippines, it is estimated that 58 per cent of the groundwater has been polluted. Elsewhere, groundwater levels, for example, in Inner Mongolia, China, drop every year; in Hohhot, Inner Mongolia, the decline is at the rate of one meter per year. Water pollution and scarcity issues currently affect a number of countries in the region. It has, therefore, become increasingly important for planning approaches to take account of sustainable energy and water usage, and promote resource efficiency at the local and regional scale. The need to recycle land or brownfield development will become more important in the future.

Against the general gloom of resource depletion and environmental degradation, some countries have taken positive steps. Singapore belongs to the category of cities that acknowledge the symbiotic relationship between environment and economy, and have put environment high on its urban agenda. It has prepared and presented a green plan outlining its vision and action on environmental sustainability to the Earth Summit in Rio in 1992. An updated version of the Singapore Green Plan 2012 with focus on clean air, clean land and clean water was presented to the World Summit on Sustainable Development in 2002. Over the past few years, Singapore has planned and built an eco-demonstration precinct as part of its eco-friendly public housing development in 2007, and instituted green building awards to encourage energy efficiency and more awareness of sustainable and environmental-friendly buildings.

In China, environmental awareness is also growing, and action includes the June 2006 White Paper on Environment Protection, which affirms China's commitment to increasing energy efficiency by 20 per cent over the next five years, the 11th Five Year Plan that advocates the introduction of strategic environmental assessment and eco-town planning. The proposed development of an experimental carbon-neutral eco-city in Dongtan includes plans for the usage of sustainable energy sources, for example, solar energy.⁸ Other eco-town development proposals have followed in quick succession, including the 350,000 population Sino-Singapore eco-city at Tianjin, which will be jointly developed by China and Singapore. In addition to green features and technologies, a central theme of this eco-city is the reduction of residents' reliance on cars by setting up an efficient public transport network and designing walkways to link homes, shops and public spaces. These developments heighten the focus on green design and environmental sustainability, which will become even more crucial in the post-oil economy.

Similarly, Malaysia has started to recognize and encourage green buildings. The government is encouraging more green investments in the country by providing tax incentives. Under Budget 2008, income derived from trading certified greenhouse gases emission reduction certificates enjoy tax exemptions, effective from assessment year 2008 to 2010. Companies providing energy conservation services will get an additional 10-year pioneer status. Other countries, such as Indonesia, have hosted large international meetings on sustainable development including the 4th Preparatory Committee Meeting for the World Summit on Sustainable Development in Bali, from 5 to 7 June 2002 and the United Nations Climate Change Conference in December 2007, while Cambodia was the venue for the United Nations Phnom Penh Regional Platform on Sustainable Development for Asia and Pacific (2001).

These international meetings draw attention to the importance of sustainable development in the region and set in motion—with international assistance—national and regional initiatives for capacity-building for sustainable development, poverty reduction for sustain-

8. BBC News, 2007.

able development, cleaner production and sustainable energy, land management and biodiversity conservation, protection and management of and access to freshwater resources, oceans, coastal and marine resources and sustainable development of small island developing states, and action on atmosphere and climate change. These external initiatives will go some way towards jump-starting the planning of a sustainable future even as they beg the question of effectiveness.

The global experience indicates strong requirement for a sustainable transport policy in smart growth. The lack of functioning urban transport systems in many cities in South-east Asia, and the rapid growth of cars (for example, Bangkok adds 500 new cars every day) are generating severe air pollution, congestion and health problems. On a local level, some efforts are being made to create sustainable transport policies in cities. Jakarta has introduced a bus rapid transit (BRT) system since February 2004 to reduce the city's transport emissions, and provide an alternative to its congested streets. Even though design shortcomings for the road surface and terminals have impaired performance of the system, public reaction has been generally positive: travel time over the BRT corridor has been reduced by 59 minutes during peak hour. Average ridership is about 49,000 per day and 20 per cent of BRT riders have switched from private motorized modes. Singapore and Hong Kong SAR have allocated road space for public buses and restrained private car usage.

In the creation of sustainable transportation, urban planning has needed to prioritize early the development of public transport services. This has met with varying success. In Singapore and Hong Kong SAR, for example, the comprehensive bus network has been considered successful. Singapore and Hong Kong SAR have introduced strong car restraint and bus priority measures early in their development. Whereas in Seoul, the Republic of Korea, traffic congestion has continued, despite a rail network provision. Early intervention is critical. There is a clear need to anticipate and plan for urban expansion. Equally important is the need to adopt traffic restraint measure as part of a balanced strategy, especially in large cities that are not poor. In Beijing, China, where 1000 new cars are added each day, while the busway system attracts a substantial number of passengers, its success is uncertain as funding, car ownership/usage control⁹ and road concerns (many Beijing roads are not very wide and the introduction of public busway system along such roads would impede normal traffic) remain.

In other parts of China, such as Shanghai and Guangzhou, some effort has been made to promote bicycles as an alternative method of transport through the provision of bicycle routes or lanes. This will help to enhance the bicycle culture of Shanghai and other cities rather than displace it, as at present. However, these efforts have met with mixed success due to co-ordination issues between, for example, the non-motorized travel routes and motorized vehicle access and parking, bicycle and pedestrian routes. To encourage people to walk or use bicycles more, it is necessary in urban planning and design to improve safety and environmental conditions.

Another common traffic management strategy has been the imposition of levies or tolls regulating road usage in city areas. The extreme example of road pricing has been present in Singapore since the 1970s (and electronic since 1998), where working with land use and transport planning and management strategies road pricing is applied to demarcated zones (generally the central business district). This form of road toll now extends to major expressways and arterial roads. While this policy has resulted in less congestion in the central business district, results on expressways have been more ambiguous.

9. There are no control measures but in the lead up to the 2008 Olympic Games, Beijing has introduced car control measures in an attempt to reduce the city's heavy traffic and air pollution.

Urban greening, on the contrary, has not been widespread in the region apart from situations where city mayors embark on city beautification schemes in a bid to attract visitors and investors, although there have been a few exceptions. For example, Singapore has created green corridors and parks connectors in the aspiration towards a garden city ideal. Sky gardens and vertical greening are encouraged among its high-rise buildings. In recent years, more greening programs are being implemented such as that in the dry zone area of Myanmar, which is the area most affected by drought. In China, development plans for the eco-city in Dongtan entail the creation of a park network.

The Chinese are increasingly emphasizing the relationship between man and nature, ‘respecting the nature, conquering the nature, and harmonizing with the nature’, that man must coexist with the nature harmoniously.¹⁰ The Chinese eco-city planning and design principles are mainly based on the ‘revival of ecological culture’ that draws on compact land-use, mixed land-use of different functions, vigour of urban public transportation to promote savings in urban infrastructure, and ensure that the urban development would be conducted in the way that has the least interference to nature.

According to the Intergovernmental Panel on Climate Change (IPCC), ‘urban areas could be severely affected by climate change’. Additionally, climate change might aggravate the environmental problems already experienced by cities. For example, water shortage in certain parts of the region is expected to become worse.¹¹ The impact of climate change on potential hazards is not to be neglected as a large number of people in East Asia live in coastal (about 25 per cent or 1.7 billion, with Vietnam and China being particularly at risk), and low-lying areas. These areas are most susceptible to rising water levels, salt-water intrusion and other such symptoms of climate change. Many islands of the Philippines and Indonesia, where the majority of the population inhabit coastal areas, are at great risk. In particular, flooding may become an increasing problem in urban areas. The IPCC study has shown that informal settlements are particularly vulnerable to the physical ramifications of climate change.

The recognition of the climate change phenomenon has magnified the importance of sustainable planning (and planning in general as unplanned urban areas are more susceptible to climate change), and the need to account for environmental cost as a development consideration. It is essential that cities take steps to protect themselves from the impacts of climate change. In the Philippines, for example, the Integrated Coastal Zone Management program adopted in June 2006 targets the advancement of sustainable development in coastal and marine environments, and utilizes a collaborative approach involving the national government department, local governments and stakeholders.

In addition to locally initiated programs, a number of cities in the region have become involved in the United Nations Sustainable Cities Programme, which aims to provide urban solutions through environmental planning and management (see Chapter 5). Adaptation to climate change and the risk management of natural hazards are becoming core development issues in the region, especially in the Pacific sub-region. Since 1995, countries in the Pacific sub-region have come together under the Pacific Islands Forum Leaders meetings to prepare regional position papers and action plans to deal with climate change and natural disasters. Since 2005, the effort has emphasized the need for mainstreaming risk management into national development planning, and strengthening capacity building to prepare for, respond to and recover from disasters. A key document is ‘An Investment for Sustainable Development in Pacific Island Countries: Disaster Risk Framework for Action 2005–2015’, which was discussed at a regional meeting held in June 2005 in Madang, Papua New Guinea. The revised

10. See Qiu, 2007 for further discussion of these concepts.

11. Erda et al, 2006; UNESCO, 2006.



Figure 6. Heritage conservation is an important aspect of urban sustainability

version, ‘Disaster Risk Reduction and Disaster Management: A Framework for Action 2005–2015’, was presented at the Pacific Islands Forum Leaders meeting for regional endorsement. Over the past three years, the Pacific has seen a renewed interest in climate change adaptation, spurred by the Pacific Islands Climate Change Assistance Program, two High Level Adaptation Consultations (2003–2004), and the momentum built by sustainable development initiatives in recent World Bank pilot operations in Kiribati, the Federated States of Micronesia, Cook Islands, Fiji, Vanuatu, Samoa and Tonga.¹²

6.2. Heritage conservation

The conservation and regeneration of historic areas have been globally recognized as a tool for sustainable urban development, offering opportunities for synthesizing cultural values, economic opportunities and community participation. Urban planning has a key role to play in the heritage conservation effort of cities. If conservation is not embraced in the city’s development plan and planning legislation, historic buildings may disappear with urban redevelopment as has happened in many cities. A prominent example is that of Beijing, China, where its century-old alleyways (*hutongs*) are demolished to make way for modern shopping malls and condominiums. The region’s preservation ethic is still weak but growing stronger with deepening globalization, and increasing recognition of the erosion of its rich cultural capital, and the place of such assets in the future of the city. Conservation of a city’s historic and cultural environment brings many benefits, including improved development effectiveness and quality of life in urban areas. The recognition is bringing nothing less than a new conservation paradigm, integrating heritage conservation with development.

An increasing number of countries have ratified/accepted the World Heritage Convention, bringing international protection to some 74 outstanding heritage properties, approximately 8 per cent of world stock (Table 26). As state parties to the Convention, these

12. See Bettencourt et al (2006) for more details.

countries have an obligation to identify, protect, conserve and present the site as well as secure education on the sites listed in the World Heritage List. Globally, 30 properties have been inscribed on the World Heritage Sites in Danger List, of which one is the Rice Terraces of the Philippines (2001). The threats to the Rice Terraces include expanding deforestation, tourism and rural-urban migration, leaving the rice fields in disrepair.

Table 26. World Heritage Sites

Country	World Heritage Sites	
	No.	Sites
China (R)	34	Imperial Palaces of the Ming and Qing Dynasties in Beijing and Shenyang (1987, 2004) Mausoleum of the First Qin Emperor (1987) Mogao Caves (1987) Mount Taishan (1987) Peking Man Site at Zhoukoudian (1987) The Great Wall (1987) Mount Huangshan (1990) Huanglong Scenic and Historic Interest Area (1992) Jiuzhaigou Valley Scenic and Historic Interest Area (1992) Wulingyuan Scenic and Historic Interest Area (1992) Ancient Building Complex in the Wudang Mountains (1994) Historic Ensemble of the Potala Palace, Lhasa (1994, 2000, 2001) Mountain Resort and its Outlying Temples, Chengde (1994) Temple and Cemetery of Confucius and the Kong Family Mansion in Qufu (1994) Lushan National Park (1996) Mount Emei Scenic Area, including Leshan Giant Buddha Scenic Area (1996) Ancient City of Ping Yao (1997) Classical Gardens of Suzhou (1997, 2000) Old Town of Lijiang (1997) Summer Palace, an Imperial Garden in Beijing (1998) Temple of Heaven: an Imperial Sacrificial Altar in Beijing (1998) Dazu Rock Carvings (1999) Mount Wuyi (1999) Ancient Villages in Southern Anhui – Xidi and Hongcun (2000) Imperial Tombs of the Ming and Qing Dynasties (2000, 2003, 2004) Longmen Grottoes (2000) Mount Qingcheng and the Dujiangyan Irrigation System (2000) Yungang Grottoes (2001) Three Parallel Rivers of Yunnan Protected Areas (2003) Capital Cities and Tombs of the Ancient Koguryo Kingdom (2004) Sichuan Giant Panda Sanctuaries (2006) Yin Xu (2006) Kaiping Diaolou and Villages (2007) South China Karst (2007)
DPR Korea (Ac)	1	Complex of Koguryo Tombs (2004)
Macau SAR, China	1	Historic Centre of Macau (2005)
Mongolia (Ac)	2	Uvs Nuur Basin (2003) Orkhon Valley Cultural Landscape (2004)

World Heritage Sites		
Country	No.	Sites
Republic of Korea (Ac)	8	Haeinsa Temple Janggyeong Panjeon, the Depositories for the Tripitaka Koreana Woodblocks (1995) Jongmyo Shrine (1995) Seokguram Grotto and Bulguksa Temple (1995) Changdeokgung Palace Complex (1997) Hwaseong Fortress (1997) Gochang, Hwasun and Ganghwa Dolmen Sites (2000) Gyeongju Historic Areas (2000) Jeju Volcanic Island and Lava Tubes (2007)
Cambodia (Ac)	1	Angkor (1992)
Indonesia (Ac)	7	Borobudur Temple Compounds (1991) Komodo National Park (1991) Prambanan Temple Compounds (1991) Ujung Kulon National Park (1991) Sangiran Early Man Site (1996) Lorentz National Park (1999) Tropical Rainforest Heritage of Sumatra (2004)
Lao PDR (R)	2	Town of Luang Prabang (1995) Vat Phou and Associated Ancient Settlements within the Champasak Cultural Landscape (2001)
Malaysia (R)	2	Gunung Mulu National Park (2000) Kinabalu Park (2000)
Myanmar (Ac)	-	-
Philippines (R)	5	Baroque Churches of the Philippines (1993) Tubbataha Reef Marine Park (1993) Rice Terraces of the Philippine Cordilleras (1995) Historic Town of Vigan (1999) Puerto-Princesa Subterranean River National Park (1999)
Thailand (Ac)	5	Historic City of Ayutthaya (1991) Historic Town of Sukhothai and Associated Historic Towns (1991) Thungyai-Huai Kha Khaeng Wildlife Sanctuaries (1991) Ban Chiang Archaeological Site (1992) Dong Phrayayen-Khao Yai Forest Complex (2005)
Vietnam (Ac)	5	Complex of Hué Monuments (1993) Ha Long Bay (1994, 2000) Hoi An Ancient Town (1999) My Son Sanctuary (1999) Phong Nha-Ke Bang National Park (2003)
Solomon Islands (A)		East Rennell (1998)
Fiji (R)	-	-
Kiribati (R)	-	-
Marshall Islands (R)	-	-
Micronesia (Federated States of) (R)	-	-
Niue (Ac)	-	-
Palau (Ac)	-	-
Papua New Guinea (Ac)	-	-
Samoa (Ac)	-	-

World Heritage Sites		
Country	No.	Sites
Tonga (Ac)	-	
Vanuatu (R)	-	

Note: Ratification (R), acceptance (Ac), accession (A).

Source: UNESCO, *World Heritage*, website: <http://whc.unesco.org/en/>.

The most appropriate level for successful operation of urban conservation is at the local and municipal level. At this level, the local population could be engaged in the conservation process. Furthermore, many of the heritage buildings and sites are in the hands of traditional owners and private caretakers. For example, in the Pacific sub-region, customary land tenure systems are the norm. The operation of the World Heritage Convention would have to recognise the local customary and other forms of land tenure, and the traditional custodianship of cultural heritage. Significant time and resources are needed to build meaningful partnerships with the local heritage owners and custodians, a task that often strains the relevant national agencies, and requires resources not currently available in the countries. Since 2000, UNESCO has introduced the Asia-Pacific Heritage Awards for Culture Heritage Conservation to recognize private sector achievements and public-private initiatives in built heritage conservation and adaptive reuse in the region. Vernacular legacy is celebrated under this Award.

To succeed, heritage conservation also needs a strong institutional and policy environment and proper preservation programs. Apart from the inclusion of broad heritage conservation directives in urban master or strategic plans, it is necessary to ensure that historic buildings are not destroyed in the construction of new, modern buildings through heritage zoning, statutes and policies. Most importantly, through land use management and technical standards, urban planning can ensure that the resultant urban landscape is a harmonious blend of old and new buildings. Adaptive reuse is an integral component of any large conservation program. In Singapore, since the 1980s the city has increasingly reversed the *tabula rasa* development approach, and restored its historic districts and traditional shop-houses using a strategy of adaptive reuse.¹³ In China, while success has been met in Quanzhou (where traditional buildings have been preserved and modernized), there have also been many failures, for example, the presence of a viaduct across Daming Lake in Jinan, which spoils the natural beauty of a traditional lake.¹⁴

Heritage conservation is not limited to the built environment. It should include the conservation of natural heritage. In South-east Asia, operating within the ASEAN framework, heritage parks have been nominated for protection under the ASEAN Declaration on Heritage Parks (Table 27).

Equally, the Pacific sub-region is a unique aquatic environment with rich natural and cultural heritage, including sacred natural landscapes. Urban development and growth has often been to the detriment of the natural coastal habitat and local ecosystems.¹⁵ For example, there have been cases of untreated waste being discharged directly into coastal water bodies. As with other cities, air pollution is also becoming a problem. But in many countries, for example, Tonga, there is no law, regulation or directive to address the protection of the atmosphere. The lack of urban planning in the Pacific sub-region has compounded the

13. Yuen, 2006.

14. Qiu, 2007.

15. Connell and Lea, 2002.

Table 27. ASEAN Heritage Parks (2003)

Country	Heritage Park
Brunei Darussalam	Tasek Merimbun
Cambodia	Virachey National Park Preah Monivong National Park (Bokor)
Indonesia	Leuser National Park Kerinci Seblat National Park Lorentz National Park
Malaysia	Kinabalu National Park Mulu National Park Taman Negara National Park
Myanmar	Alaungdaw Kathapa National Park Meinmahla Kyun Wildlife Sanctuary Indawgyi Lake Wildlife Sanctuary Inlay Lake Wildlife Sanctuary Khakaborazi National Park Lampi Marine National Park
Philippines	Mt. Apo National Park Iglit-Baco National Park
Singapore	Sungei Buloh Wetland Reserve
Thailand	Khao Yai National Park Kor Tarutao National Park Ao Phangnga - Mu Koh Surin – Mu Koh Similan Marine National Park Kaengkrachan Forest Complex
Vietnam	Hoang Lien Sa Pa National Park Ba Be National Park Kon Ka Kinh National Park Chu Mom Ray National Park
Lao PDR	will submit their nominations for ASEAN Heritage Parks at a later date.

Source: ASEAN Secretariat, <http://www.aseansec.org/15524.htm>.

damage urban settlements have towards coastal reefs, mangroves and other marine environments. The presence of the customary land tenure system and the growth of informal settlements further worsen the situation. The lack of basic planning functions and weak institutions has meant that sustainable development, while increasingly necessary, has been absent so far in many of the countries in the Pacific sub-region.

Yet, several of the island countries in the Pacific sub-region and elsewhere in the region are particularly susceptible to the effects of climate change, such as rising sea levels and salt-water intrusion, as many of these islands (for example, Kiribati) are low-lying with their populations mostly centred along coastal areas. It is ever critical, therefore, for countries in this region to proactively adopt conservation, climate change adaptation provisions in addition to sustainable development strategies. Urban sustainability will inevitably feature high on the region's urban planning agenda in the coming years.

7. Planning and Informality of Urban Development

This Chapter will offer a discussion of how planning takes cognizance of the level of informality in cities within the region. This is based on the understanding that conventional planning in most developing countries in East Asia, South-east Asia and the Pacific largely takes place within the formal regulatory framework. But where public institutions are unable to cope with the delivery of land, services and regulation, the informal systems through which these processes happen will be discussed. It will also discuss the scale, dynamics and nature of urban sprawl, peri-urbanization, metropolitanization, and identify the key urban planning issues in these areas.

7.1. Planning and informal urban development

Informality in urban development is not new. As noted in Chapter 2, the growth of urbanization has seen the growth of informal developments. The level of informal urban developments among the countries in the region is high and still growing. In many cases, the informal urban developments have out-grown the formally planned areas. The vast majority of the urban population lives in informal housing—urban slums, characterized by very limited or no infrastructure and services. Many are located on unsafe sites, on land along risky railway tracks, riverbanks, swamps, flood-prone areas or landfill sites. An estimated 80 to 90 per cent of all new urban housing in the Pacific sub-region is informal.¹ In consequence, a whole new generation of young people is growing up in these settlements. Often, it is the poor who occupy this housing. Inadequate formal low-cost housing is an issue for many cities in the region.² Frequently, informal urban development is created by political or institutional condition as much as technical deficiencies:

- **High urban growth rate and rural-urban migration:** The informal sector provides an entry point to the city for the large number of migrants who leave their villages with the hope of availing themselves of an urban income higher than their agricultural income.³
- **Employment:** In areas with strong economic growth, industrial development expansion is occurring informally on rural land, on the fringe of cities, and offering job opportunities.
- **Needs gap:** The high growth rate of the urban population without a simultaneous growth of the formal urban sector, especially low-income housing provision is driving many urban poor and even urban middle-class people to the informal sector to buy (often without the land title) or rent in an informal settlement.
- **War and disasters:** These events physically destroy housing structures, increase the pressure on urban housing stock, and aggravate the needs gap as governments concentrate on reconstruction and reconciliation efforts following war and disasters.
- **Inefficiencies in land use regulations:** A lack of land information and inefficiencies in land use regulations (which are costly to comply and often weak in

1. UNESCAP, 2008.
2. Duncan, 2007.
3. Chaudhuri, 1989.



Figure 7. Informal economy is a way of life in many cities

informal housing market) and land transfer mechanisms have left many without formal access to land and housing. In the Pacific sub-region where customary land laws prevail, the urban poor build their housing on customary land that is outside of the formal city boundary, and governed by traditional authority or rural locals instead of municipal authorities. Customary and common law systems are often in favor of men, rendering women with limited rights and access to land and housing markets.⁴

- **Urban land shortage:** Land supply is failing to keep up with the demands of urbanization in many cities (often because of existing land tenure and ownership systems). The inevitable result is widening land speculation and rising land prices that are contrary to the interests of the poor who find themselves increasingly priced out of the formal markets and driven to find housing in informal markets. Duncan, however, has argued that this is not so much a problem of a shortage of urban land for housing as it is a shortage of reasonably priced buildable land in urban areas.⁵
- **Institutional attitude:** Despite promises made by many developing country leaders to resolve the urban poverty problem, many governments have failed to effectively deal with this issue. They tend to formulate plans, policies, laws, regulations and procedures focused on the urban middle-class and not the urban poor. Urban poor are, therefore, excluded from the outcome of formal urban plans and activities.⁶ Related to this is the laissez-faire approach to the informal sector, which is considered to largely ‘take care of itself’. Governments have provided little assistance to households in terms of easier access to credit and other supportive action. Many lack the resources.

4. Storey, 2006; Connell and Lea, 2002.

5. Duncan, 2007.

6. UNESCAP, 2008.

As de Soto argued, people primarily operate in the informal market because they cannot afford ‘formality’.⁷ There are different types of informal settlements, ranging from squatters on state lands who are illegal occupiers of the land to quasi-legal renting of customary lands where there is often proper negotiation with the leadership of the landowning clan and the construction of houses takes place with the explicit or implied consent of the landowner. Middlemen sometimes operate on behalf of the landowners or a particular needy group, and the arrangements made are insecure and often lead to misunderstanding. There is an urgent need for new approaches to manage the growth of informal settlements. Such growth has consequential impact on the city’s ability to meet the basic needs of its residents and its competitiveness. The absence of ability, a lack of an adequate formal response to the growth of informal settlements or unpreparedness can lead to deteriorating environmental quality, economic and social systems of the city including poverty, growth of the informal sector, inadequate infrastructure, and insufficient provisions for housing, health and education services.

The traditional approach has been to clear the slums and informal settlements. A common reason for slum clearance is to enable public utility works to take place. Forced eviction is often an integral aspect of slum clearance.⁸ With the possible exception of Singapore and Hong Kong SAR, where large-scale public housing has been built for the relocated tenants,⁹ this approach has not seemed to achieve its target. In Singapore, slum clearance is accompanied by a set of resettlement policies of compensation and alternative housing. At core is the shelter for all policy, which has seen Singapore transformed from a city with one of the world’s worst slums to almost squatter-free city (less than 1 per cent of squatter settlements remain).

In support of the Habitat Agenda implementation, an increasing number of countries have introduced programs to provide shelter for all and legal right to adequate housing, including to women (Table 28). Malaysia, for example, has implemented a Zero-Squatter Policy and the Integrated People’s Housing Program for Squatter Resettlement. Resettlement of informal urban areas is undoubtedly a common intervention. It is, however, crucial for resettlement policies and assistance to match people’s needs and priorities. Resettlement policies should be based on the principle of matching systemic causes with systemic responses, and should be replicable, sustainable and consistent. In this regard, the ADB has suggested some key principles for good resettlement planning: fair and equitable compensation for lost assets, livelihoods and incomes; restoration (or enhancement) of living standards and livelihoods through housing replacement and income restoration programs, adoption of participatory planning strategies; and dealing with the special problems of vulnerable groups.¹⁰ In the Philippines, a major thrust of its resettlement policy is to relocate affected households to one of five selected resettlement sites preferred by the affected households.

Since the 1970s, with the growing recognition of slums as an economic and social investment (the bulk of the savings of the poor are directed to housing), and an important labour force in many cities, public intervention in housing has extended to include ‘sites and services’, slum upgrading and micro-finance for housing. The more innovative of these have included elements of community participation and security of tenure, for example, the Kampung Improvement Project in Indonesia, the Baan Mankong (secure housing) program in Thailand, and the 300-hectare Vitogo and Drasa resettlement and upgrading scheme at Lautoka, Fiji.

7. De Soto, 1989.

8. See Duncan, 2007 for examples.

9. Yuen, 2005.

10. ADB, 1998.

Table 28. Housing indicators, selected cities (1998)

City (country)	Housing rights					Housing price to income* (ratio)	Rent to income** (ratio)
	Legal provisions		Impediments to women				
	Right to adequate housing	Protections against eviction	Owning land	Inheriting land and housing	Taking mortgages		
Phnom Penh (Cambodia)	Yes	No	Some	Some	Some	8.9	...
Bandung (Indonesia)	Yes	Yes	None	None	None	7.6	...
Jakarta (Indonesia)	Yes	Yes	None	None	None	14.6	...
Semarang (Indonesia)	Yes	Yes	None	None	None	...	...
Surabaya (Indonesia)	yes	Yes	None	None	None	3.4	19.0
Vientiane (Lao PDR)	Yes	Yes	None	None	None	23.2	10.0
Penang (Malaysia)	Yes	Yes	None	None	None	7.2	4.9
Ulaanbaatar (Mongolia)	Yes	Yes	None	None	None	7.8	...
Rangoon (Myanmar)	No	No	None	None	None	8.3	15.4
Cebu (Philippines)	Yes	Yes	None	None	None	13.3	...
Hanam (Rep. of Korea)	Yes	Yes	Some	Some	Some	3.7	13.9
Pusan (Rep. of Korea)	Yes	Yes	Some	Some	Some	4.0	...
Seoul (Rep. of Korea)	Yes	Yes	Some	Some	Some	5.7	...
Singapore	Yes	No	None	None	None	3.1	2.0
Bangkok (Thailand)	Yes	No	None	None	None	8.8	22.2
Chiang Mai (Thailand)	Yes	No	Some	Some	Some	6.8	25.0
Hanoi (Vietnam)	Yes	Yes	None	None	None	...	...
Ho Chi Minh City (Vietnam)	Yes	Yes	None	None	None	...	...
Apia (Samoa)	Yes	Yes	None	None	None	10.0	36.0

... denote no information.

* Ratio of the median free-market price of a dwelling unit and the median annual household income.

** Per cent ratio of the median annual rent of a dwelling unit and the median annual household income of renters.

Source: UN-HABITAT, 2007: 396.

The latter undertaken by the Fiji Housing Authority involved negotiations with the Lautoka City Council, Fiji, for relaxing some of the infrastructure standards so as to increase the affordability of serviced sites for a maximum number of households. A 10-year development scheme was prepared for investment, along with costing and pricing of the developed sites. The plan was implemented in stages after extensive community consultation. The major features of the scheme included the preservation of the maximum number of existing house sites and minimal dislocation of existing houses to make way for public uses, an agreed formula for compensation for house relocation and damage to valuable trees, residents who were not eligible for the cheapest site were offered subsidized rental accommodation, cross-subsidy for lower income groups through the differential pricing of higher class residential leases, some of which were allocated through a tendering process, allocation of a 99-year sub-lease over sub-divided house sites to existing tenants and their offspring resident in the area but without a house, employment opportunities for local residents in the land development works, and an agreement to allow the Housing Authority to undertake its housing programs on any unallocated land.

Multilateral development banks, the World Bank, United Nations and NGOs have played an important role in promoting and proliferating this strategy in an enablement approach towards poverty alleviation. As noted above, slum upgrading projects often include land

regularization and provision of basic services and support (including finance) to enhance residents' formal access to land and housing, security of tenure and home/community improvements. The basic premise of the strategy is to accept the inevitable existence of informal urban developments in cities, and seek ways to improve the living and environmental conditions through the provision of essential services such as water supply and sanitation to the informal settlements. Apart from supportive state intervention in the areas of credit, technical support and infrastructure, action to reduce market distortions caused by state intervention, controls and restrictions will help the development of effective remedies.

More effective land and housing markets would improve the core problem of informality. The impediments to the availability of land must be addressed. High planning and building standards that are unaffordable for a majority of households and likely to encourage the growth of informal settlements need review. While the public sector continues to be responsible for planning and coordinating urban expansion and infrastructure provision, the private sector and other interest groups could be engaged to assist with funding arrangements and implementing the built product. Public-private partnerships could offer one solution to ensure legal/formal access to land and housing for the poor. Guided land development has been implemented in the periphery of cities like Seoul, Republic of Korea, and Jakarta, Indonesia, with the condition that private landowners provide a certain percentage of small plots, which poor families can afford.¹¹ In Malaysia, it is a planning requirement that private developers include a 30 per cent low-cost housing component in their housing projects of a certain size.

Even as planning may help to ensure that land is made available for new housing in the growing cities, the land rights question remains. Land supply constraints are at the heart of many problems of sound urban management in the region. As discussed elsewhere, access to land and security of tenure are strategic pre-requisites for the provision of adequate shelter for all and for the development of sustainable human settlements.¹² Large-scale legal tenure reforms are practically impossible due to the limited capacity of cadastral services in many developing countries. The alternative is perhaps an approach to secure land tenure that includes a commitment to stop forced eviction and promote protection procedures when forced evictions are unavoidable as well as records of land use and occupancy rights with an incremental upgrading of rights over time.¹³ Crucial to this implementation is political will.

7.2. Urban planning and sprawl development

Urban settlement races ahead of the building of infrastructure and housing. In many cases, this has led to urban sprawl, peri-urbanization and urban villages on the fringe of cities, outside established urban boundaries. Unregulated, cheap accommodation in the peri-urban areas has provided shelter to millions of low paid industrial workers and fuelled sprawl development. At the fringe of Chinese cities, there are many informal developments and settlements in the so-called 'urban villages', providing shelter to the 'floating population'. These urban villages are traditional villages that have gradually merged into the built-up areas of cities due to industrialization.¹⁴

Urban villages usually maintain some of their rural physical, socio-economic and environmental characteristics, preserving traditional communities while diversifying their socio-economic and physical structure. They share similar characteristics with informal settlements

11. UNESCAP, 1994.

12. UN-HABITAT, 2007: 114.

13. UN-HABITAT, 2003a.

14. Webster and Muller, 2004.

where their living conditions (characterized by high building densities and poor building quality), public security and access to infrastructure facilities and services are usually below urban standards. Inadequate as they may be, these rural densifications may become tomorrow's built-up suburbia.

The pattern of Chinese metropolitanization seems to converge towards a three-stage transformation, from traditional rural villages to informal urban villages and metropolitan cities instead of the conventional two-stage urbanization process from traditional rural villages to modern cities. The informal peri-urban development may differ from country to country (and even regions within a country), reflecting local/national/global socio-economic and political situations, which are dynamically transforming through time. As noted in Chapter 2, this phenomenon is referred to as 'desakota' (neither city nor rural) in South-east Asian cities.

These desakota regions are characterized by an intense mix of agricultural and non-agricultural activities, occurring on the fringe of large cities (beyond the core and suburbia), often primate capital cities. In the Pacific sub-region, too, with urbanization gaining momentum in the 1960s, capital cities are fast becoming primate cities with expanding peri-urban areas. Most of the peri-urban landscape is not built up in the way the core or suburbs of the city are. The main features of the peri-urban landscape include nodes of industrial estate and its factories, small and medium sized establishments, green fields and villages, highways, arterial roads and rail lines.

Peri-urbanization in the region is a major issue, not just because of its growing prevalence and scale (see Chapter 2) but also because peri-urbanization is being so poorly managed in most countries that it is contributing to the growth of slums and environmental degradation in urban peripheries. Urban poverty is also increasingly shifting to peri-urban areas with the high land cost in core areas and the abundance of manufacturing employment in many peri-urban areas. Often, the edges of large cities are the most accessible to the poor; they are the first areas to which in-migrants go. Even though peri-urbanization is a global phenomenon, it tends to be driven by different economic forces in the developed and developing countries.

What are the drivers of peri-urbanization? Why does the urban village phenomenon occur in China even as UN-HABITAT reports that 'China has managed so far to urbanize rapidly without the creation of large slum areas or informal settlements'?¹⁵ In China, village collective land is seriously undervalued. The low land cost makes village collective land more attractive to developers. The general absence of a regulatory environment makes this land an attractive alternative to the core city for some companies, leading to the ex-urbanization of industry. At the same time, municipalities see this land as a source of revenue to fund urbanization. Farmland (including basic farmland) in some parts of the expanding municipal area is thus prematurely converted to urban uses, in some cases, irrespective of market demand.

This trend heralds the growth of urban and industrial developments, especially in areas with strong economic growth, usually informally on rural land, not controlled by the planning system. Private investments rather than urban and regional development planning are channeling land use changes in the urban peripheries. Large commodity housing projects (often gated communities), industrial parks, technology development zones, etc. have mushroomed alongside dense informal settlements. This often leads to problems for future planning as most unplanned factories appear close to villages. In Guangdong province, China, over half of the urban expansion has occurred on village collective land through informal processes. Even

15. UN-HABITAT 2003a: 126.

though peri-urban areas are sites of new industrial and economic growth, the existing flexibility accentuates weaknesses in urban systems including,

- a lack of incentive structures for local governments to allocate public resources effectively and utilize resources (within given functional areas) efficiently, leading to minimal spending on capital investment, particularly for developmentally catalytic projects in peri-urban areas;
- poorly functioning urban land markets including inadequate and poorly functioning housing finance mechanisms for the poor and lower-middle income groups;
- security issues in peri-urban areas which constrain investment (particularly foreign direct investment) and tourism;
- large scale backlog needs for urban infrastructure and services, combined with strong demographic pressures, making it difficult to deal with causes of problems and engage in pro-active developmental activities;
- high transportation and communication costs (in time, money and pollution) within and between urban areas, reducing city competitiveness;
- disinvestment and deterioration in some formerly vital business areas in the core as a result of strong centrifugal development forces associated with suburbanization and peri-urbanization, threatening a ‘hollowing out’ of the city core unless measures are taken to fund both rapid peripheral growth and investment in the core.

The result is often an emphasis on addressing symptoms of problems, rather than causes. While many are overwhelmed by the growth, some cities have begun to pay attention to the urban periphery land market and control peri-urban areas, spearheaded by strong and relatively effective metropolitan governments.¹⁶ Bangkok in Thailand, Seoul in the Republic of Korea, and several Chinese cities are some examples. The effort is not without its challenges, requiring coordination and an effective institutional framework to ensure that plans can be implemented. In 2004, Guangdong province, China, has promulgated a Notice for Provisional Practicing Rural Collective Construction Land Use Right Flow (Guangdong Notice), which essentially allows development on village collective construction land, establishes minimum planning and construction requirements, sets down procedures to improve the transparency of the process and ensure farmer participation and regulates the usage of income to ensure part of the income is distributed to farmers. The overall objective is to impose some control and minimum standards over this type of informal development rather than to ban it altogether.

In Shenzhen, China, the policy is revised to extend urban boundaries so that all land comes under the control of the city authorities. This approach is viewed positively as it allows for local small and medium-scale enterprise development to occur in a regulated, but not overly restrictive environment. Other Chinese cities such as Zhuhai are promoting public-private partnerships in urban village redevelopment, involving all stakeholders in the process—the rural collective, village residents, local governments and developers. The migrant residents who have tenuous residency rights are also being offered housing of the same size in alternative locations. To date, half of the 26 urban villages have been rebuilt inside the urban area. Beijing, China, appears to be moving in a similar direction, though it is currently unknown as to whether its migrants will be given the same rights as in Zhuhai.

16. Coulthart et al, 2007.

Access to housing is a critical issue in peri-urban areas. In particular, addressing migrant housing needs is of critical importance. The alternative—the continuing growth of informal urban villages (and slums)—is clearly unattractive to urban managers in favour of a more sustainable and healthy form of urban development. As discussed above, strategies can be developed to improve low-income groups' access to housing, through a range of direct government assistance to private sector development. The Chinese government, for example, has a housing assistance program since 1988, but the program only benefits recipients of Dibao.¹⁷ The assistance is mainly provided in the form of house renting subsidy or rental house allocation and rent reduction. It is funded from 5 per cent of income of local land leasing. By 2005, most prefecture level cities had established housing assistance system and the total expenditure in 2005 was RMB 2.59 billion, covering almost 1 million poor (329,000 households).

Direct construction of affordable housing for low-income groups is also being carried out in some cities,¹⁸ with a requirement for a minimum number of small units to be provided within new residential developments. In Hangzhou, China, 50 per cent of the land for housing has been designated for affordable housing in 2004. Yet, most of the affordable housing projects are located in the outer suburbs. Against the concerns for environmental sustainability, a more appropriate locational strategy is one that encourages the even distribution of affordable housing and jobs in the city. Put simply, planners can no longer neglect the issue of increasing separation and distance between work and living spaces in cities, especially with the increasing expansion of peri-urban areas. Peri-urbanization calls for better balancing of not just work and living spaces but also rural-urban relations, a more balanced territorial distribution of economic growth.

17. Shanghai first piloted the Minimum Living Standard Guarantee (Dibao) program in 1993, which supports the poor whose income is below the local dibao line.

18. *China Daily*, March 2006, citing an unpublished Ministry of Construction, China, report.

8. Infrastructure Provision and Spatial Structure of Cities

This Chapter will examine the relationship between infrastructure provision and spatial structure of cities. It will discuss the public policies guiding infrastructure provision, including the emergence of mega-projects. The extent to which certain areas and groups are marginalized or excluded from accessing urban infrastructure will also be identified.

8.1. Infrastructure provision and the city

Infrastructure provision is important to the proper functioning of the city and urban quality of life. Infrastructure in the urban context typically includes three broad groups of support systems: transport modalities, utilities and public services. These infrastructure networks collect and distribute people, water, sewerage, storm water and solid waste across metropolitan areas. Important as these networks are to productivity, economic development and urban competitiveness, they are often the product of the interaction between land markets and regulations that determine who will enjoy them, to what extent and when.¹ As noted in Chapter 1, one of the challenges of the growth of urbanization is in the area of urban infrastructure investment, planning for urban infrastructure to cope with need, and for the provision of facilities and networks that can service those who are poor and those who are left out.

While progress has been made in the past decade, few cities have 100 per cent coverage in basic infrastructure of water supplies (Table 29) and sanitation (Table 30). Singapore is among the few cities that have 100 per cent coverage. Central to this provision is its strong commitment to spatial planning where development plans provide a coordinating framework for the systematic and timely investment in infrastructure to serve urban development (see Chapter 4). A focal strategy of its planning is to integrate urban development and transport planning so as to minimize the need for travel. This is complemented by a comprehensive land transport policy that manages the demand and supply of the transport system, including road pricing and mass rapid transit network. In many other cities, especially the larger cities such as Bangkok, Manila and Jakarta, a substantial proportion of those working in the city spend long daily commuting time in traffic jams or in overcrowded and uncomfortable buses. In many cases, pedestrians suffer too through inadequate provision of pedestrian walkways.

Table 29. Infrastructure coverage, improved drinking water

Country	Improved drinking water coverage (%)						Household connection to improved drinking water (%)					
	Total		Urban		Rural		Total		Urban		Rural	
	1990	2004	1990	2004	1990	2004	1990	2004	1990	2004	1990	2004
China	70	77	99	93	59	67	48	69	81	87	36	57
DPR Korea	100	100	100	100	100	100	...	77	...	81	...	71
Mongolia	63	62	87	87	30	30	28	28	49	49	1	1
Republic of Korea	...	92	97	97	...	71	...	84	96	96	...	39
Cambodia	...	41	...	64	...	35	...	9	...	36	...	2
Indonesia	72	77	92	87	63	69	10	17	27	30	2	6
Lao PDR	...	51	...	79	...	43	...	14	...	44	6	6
Malaysia	98	99	100	100	96	96	...	94	98	98	...	87
Myanmar	57	78	86	80	47	77	5	6	18	16	1	2

1. Bertaud, 2002.

Country	Improved drinking water coverage (%)						Household connection to improved drinking water (%)					
	Total		Urban		Rural		Total		Urban		Rural	
	1990	2004	1990	2004	1990	2004	1990	2004	1990	2004	1990	2004
Philippines	87	85	95	87	80	82	24	45	41	58	8	23
Singapore	100	100	100	100	..	..	100	100	100	100	..	..
Thailand	95	99	98	98	94	100	28	38	70	85	11	16
Timor-Leste	...	58	...	77	...	56	...	12	...	28	...	11
Vietnam	65	85	90	99	59	80	9	24	40	73	1	6
Cook Islands	94	94	99	98	87	88	...	...	...	...	...	...
Fiji	...	47	...	43	...	51	...	20	...	32	...	7
French Polynesia	100	100	100	100	100	100	98	98	99	99	96	96
Guam	100	100	100	100	100	100	...	...	...	...	...	...
Kiribati	49	65	76	77	33	53	25	36	46	49	13	22
Marshall Islands	96	87	95	82	97	96	...	...	...	...	...	...
Micronesia (Federated States of)	88	94	93	95	86	94	...	...	...	...	...	...
Niue	100	100	100	100	100	100	...	100	100	100	...	80
Northern Mariana Islands	98	99	98	98	100	97	...	...	93	...	...	35
Palau	80	85	73	79	98	94	...	...	...	...	...	10
Papua New Guinea	39	39	88	88	32	32	11	11	61	61	4	4
Samoa	91	88	99	90	89	87	...	57	...	74	...	52
Solomon Islands	...	70	...	94	...	65	11	14	76	76	1	1
Tokelau	94	88	..	..	94	88	0	0	..	..	0	0
Tonga	100	100	100	100	100	100	...	75	...	72	...	76
Tuvalu	91	93	92	94	89	92	...	...	...	...	...	...
Vanuatu	60	60	93	86	53	52	38	39	80	74	28	28

... denote no information. No information available for countries not listed.

Source: UN-HABITAT, 2007: 359.

Table 30. Infrastructure coverage, improved sanitation

Country	Improved sanitation coverage (%)					
	Total		Urban		Rural	
	1990	2004	1990	2004	1990	2004
China	23	44	64	69	7	28
DPR Korea	...	59	...	58	...	60
Mongolia	...	59	...	75	...	37
Cambodia	...	17	...	53	...	8
Indonesia	46	55	65	73	37	40
Lao PDR	...	30	...	67	...	20
Malaysia	...	94	...	95	...	93
Myanmar	24	77	48	88	16	72
Philippines	57	72	66	80	48	59
Singapore	100	100	100	100	..	..
Thailand	80	99	95	98	74	99
Timor-Leste	...	36	...	66	...	33
Vietnam	36	61	58	92	30	50

Country	Improved sanitation coverage (%)					
	Total		Urban		Rural	
	1990	2004	1990	2004	1990	2004
Cook Islands	94	100	100	100	91	100
Fiji	68	72	87	87	55	55
French Polynesia	98	98	99	99	97	97
Guam	99	99	99	99	98	98
Kiribati	25	40	33	59	21	22
Marshall Islands	74	82	88	93	51	58
Micronesia (Federated States of)	29	28	54	61	20	14
Niue	100	100	100	100	100	100
Northern Mariana Islands	84	95	85	94	78	96
Palau	67	80	76	96	54	52
Papua New Guinea	44	44	67	67	41	41
Samoa	98	100	100	100	98	100
Solomon Islands	...	31	98	98	...	18
Tokelau	39	78	..	..	39	78
Tonga	97	97	98	98	96	96
Tuvalu	78	90	83	93	74	84
Vanuatu	...	50	...	78	...	42

... denote no information. No information available for countries not listed.

Source: UN-HABITAT, 2007: 359.

In the area of water and sanitation, as a water-stressed country, Singapore has planned and developed its water supply and sanitation infrastructure to reflect an integrated water resources perspective where water demand is carefully managed under a 'Water for All' policy to conserve, value and enjoy its water. Since 2003, Singapore has promoted a public policy of 3Rs: reduce, reuse and recycle water by integrating and managing the complete water cycle, from sourcing, collection, storm water management, purification and supply of drinking water to treatment of used water, turning wastewater to drinking standard or NEWater (see Figure 8). Singapore is 100 per cent sewerred, and all used water is collected and sent to water reclamation plants. In 2007, Singapore has set up a water knowledge hub and is working with the ADB to jointly promote knowledge-sharing and capacity development programs in the region's water sector. A number of factors have fuelled attention on infrastructure investment in the region over the past decade, including:

- Decentralization of government to local levels has occurred in many countries at the same time as programs to improve the provision of services in urban areas. This has raised awareness of the importance of better and more service facilities, especially to reduce poverty and to improve local economic growth.
- Multilateral agencies such as the World Bank, United Nations and ADB have played an important role in raising this awareness through the millennium development goals and their regional technical assistance programs on infrastructure. The ADB, for example, has approved the Public-Private Community Partnerships in Urban Services for the Poor in 2000 (implemented from January 2001 to June 2002), the Water Financing Program 2006–2010, mobilizing co-financing and investments from developed partners such as Austria, Australia, Norway and Netherlands, and the Asia Pacific Water Forum to encourage more collaborative efforts and accelerate the process of effective integration of water resources management into the region's socio-economic development.



Figure 8. Singapore has implemented water recycling to augment the city's water supply

- Globalization and direct foreign investment have accentuated the importance of infrastructure capacity, particularly transportation and information and communication technologies, resulting in municipalities becoming more aware of the importance of infrastructure to the competitive position of their cities.

In consequence, upgrading the urban infrastructure has become a high priority in many cities. Among Chinese cities, the failure to provide sufficient infrastructure to catch up with economic growth in the 1980s has led to changes in constitutional level rules in the early 1990s to allow local governments at the collective-choice level to device rules at the operational level to encourage the provision of urban infrastructure and to fund urban infrastructure projects from a range of sources including budgetary and extra-budgetary allocations, foreign loans with state sponsorship, loans from state policy lenders, funds from state bonds and government sponsored loans from state commercial banks. The race towards more and better urban infrastructure has seen many Chinese cities investing heavily in roads and mass transit railway systems. Take Shanghai, as Yusef and Wu described:

*“Improvements are particularly rapid in road construction, park expansion, and wastewater treatment. Shanghai now treats 30 percent of its wastewater, compared to an average level of about 7 percent in all Chinese cities. A number of large infrastructure projects have been completed, such as three bridges and two tunnels across the Huangpu River, an inner ring road, elevated north-south and east-west thoroughways, and two new subway lines. Furthermore, the first phase of a new light rail system is expected to be operational in 2000. The city recently unveiled a 20-year blueprint for the construction of 11 subway lines, seven light rail lines, and three suburban railways. So by 2020, the city will have a total of 325 kilometers of subway and 136 kilometers of light rail.”*²

2. Yusef and Wu, 2001: 15.



Figure 9. Traffic congestion is a challenge in many large cities

According to Dollar et al, an increasing number of Chinese cities have built urban infrastructure to a point where shortages no longer constrain the performance of firms.³ However, coordination remains a problem. There is a need to focus more on interagency coordination, better regulation and effective use of the physical infrastructure that these cities have built in the past 15 years.

The layering of infrastructure expansion over the existing urban structure is perhaps most transformative in emerging and aspiring global cities (in the first generation newly industrializing economies of the Republic of Korea, Hong Kong SAR and Singapore followed by Malaysia, Thailand, Indonesia and the Philippines, and more recently, the transitional economies of Vietnam and China). Urban economic change and globalization have been a major source in accelerating industrialization and fostering post-industrial transition in these countries' capital or large cities, changing the scale, pace of expansion and form of their infrastructure and urban spatial structure. In the process, the urban landscapes have been radically reconstructed with modern transportation infrastructure, industrial parks, suburban housing, shopping complexes and other urban functions on a scale and complexity that assimilate global (western) development rather than the surrounding landscape. In East Asia and South-east Asia sub-regions, the transformation has led to the growth of new markets for 'world class' urban space among the local nouveau riche, the multinational and corporate investors. This change is expected to continue with the onset of an ageing population, which will bring a different set of lifestyle and health needs to the city.

As of now, a new model of urbanism is appearing, largely centred on auto-mobility, intense commodification of housing where the growing consumer class isolate themselves from the surrounding city in enclaves, often in gated communities, and a celebration of

3. Dollar et al, 2003.

consumerism that distinguishes with its high-rise and mega-project investment. China is leading the world in high-rise construction (Table 31). From almost no presence in the 1970s, the magnitude of global franchises is now extensive; ranging from ubiquitous fast food restaurants such as MacDonald's to Starbucks, hotel chains, car rental companies, internet providers to branded boutiques and shopping malls. There was not a single shopping mall in Jakarta, Indonesia, for example, in 1970. By 2001, there were approximately 100 malls and superblock shopping and business complexes in the city, mostly post-1980 built. The developments are often large scale and may occur from centre to periphery, periphery to periphery, centre to centre, or periphery to centre of the city.

In the urban core, many older low-rise structures have been redeveloped into high-rise shopping and office complexes. In Bangkok, Thailand, between 1990 and 1997, at least 65 buildings higher than 30 stories were built. As shown in Table 31, an increasing number of cities have produced some of the world's tallest buildings, often these are juxtaposed to slums, and sometimes uncompleted buildings as the case in Manila, the Philippines.

Entire new satellite cities with international standard facilities and infrastructure are also planned. Examples include the Muang Thong Thani (for 1 million population), 40 km from the heart of Bangkok Thailand; Saigon South (for 140,000 population), 4 km from Ho Chi Minh City, Vietnam; and Lippo Karawaci Township in west Jakarta, Indonesia (for more than 40,000 residents in the middle and upper middle income market).⁴ Not all developments have been successful. The Muang Thong Thani, for instance, was adversely affected by the 1997 Asian Financial Crisis. While the development of many of these emergent urban landscapes is undertaken by the private sector, the state continues to play a formidable role in planned urban modernization, in the planning of public goods such as roads, environmental infrastructure and basic services as well as the new development areas. A prime example of the latter is the Pudong area of Shanghai, China, projected for a population of 650,000 residents. Pudong covers an area of 522 km², which is more than the size of Shanghai itself. The government's policy is to develop an export-processing zone (one of the largest in the world) at Pudong.

Even as mega-projects of infrastructure are being developed, infrastructure inadequacy remains, especially in the lesser developed areas and informal settlements (see Chapter 7). A common issue is the lack of basic urban infrastructure and services in squatter areas. Sanitation is typically almost non-existent in poor districts.⁵ Several factors contribute to the inadequacy,

- **Old and expired infrastructure:** Much of the existing infrastructure is outdated, expired and in need of maintenance and replacement. This is a problem in many of the poorer countries. In Phnom Penh, Cambodia, for example, much of the urban infrastructure is 70 to 80 years old, and in need of upgrading. Its water supply systems, for example, cannot withstand normal pressure from elevated storage reservoirs, 60 per cent of water supply pipelines leak.
- **Inequitable distribution:** In many poor developing countries, it is common to find that the best water and sanitation services are provided to the more affluent areas of the cities even though these services may be more costly from an engineering perspective. This situation is fairly common in the Pacific sub-region.⁶

4. Dick and Rimmer, 1998.

5. ADB, 2004.

6. Connell and Lea, 2002.

Table 31. Tall buildings in East Asia, South-east Asia and the Pacific

Rank*	Building**, city, country	Completion year	Stories	Height (metres)
3.	Petronas Tower 1, Kuala Lumpur, Malaysia	1998	88	452
4.	Petronas Tower 2, Kuala Lumpur, Malaysia	1998	88	452
6.	Jin Mao Building, Shanghai, China	1999	88	421
7.	Two International Finance Centre, Hong Kong SAR, China	2003	88	415
8.	CITIC Plaza, Guangzhou, China	1996	80	391
9.	Shun Hing Square, Shenzhen, China	1996	69	384
11.	Central Plaza, Hong Kong SAR, China	1992	78	374
12.	Bank of China, Hong Kong SAR, China	1989	70	367
16.	The Center, Hong Kong SAR, China	1998	73	346
19.	Shimao International Plaza, Shanghai, China	2006	60	333
20.	Minsheng Bank Building, Wuhan, China	2007	68	331
21.	Ryugyong Hotel, Pyongyang, DPR Korea	1995	105	330
24.	Nina Tower I, Hong Kong SAR, China	2006	80	319
29.	Menara Telekom Headquarters, Kuala Lumpur, Malaysia	1999	55	310
33.	Baiyoke Tower II, Bangkok, Thailand	1997	85	304
42.	SEG Plaza, Shenzhen, China	2000	71	292
45.	Plaza 66, Shanghai, China	2001	66	288
48.	Sunjoy Tomorrow Square, Shanghai, China	2003	55	285
50.	Cheung Kong Center, Hong Kong SAR, China	1999	63	283
51.	Chongqing World Trade Center, Chongqing, China	2005	60	283
54.	United Overseas Bank Plaza, Singapore	1992	66	280
55.	Republic Plaza, Singapore	1995	66	280
56.	Overseas Union Bank Centre, Singapore	1986	63	280
58.	Hong Kong New World Tower, Shanghai, China	2002	61	278
59.	Diwang International Commerce Center, Nanning, China	2006	54	276
62.	Wuhan World Trade Tower, Wuhan, China	1998	60	273
63.	Cullinan North Tower, Hong Kong SAR, China	2007	68	270
64.	Cullinan South Tower, Hong Kong SAR, China	2007	68	270
66.	China International Center Tower B, Guangzhou, China	2007	62	270
67.	Dapeng International Plaza, Guangzhou, China	2006	56	269
74.	BOCOM Financial Towers, Shanghai, China	1999	52	265
77.	Shenzhen Special Zone Daily Tower, Shenzhen, China	1998	42	264
78.	Tower Palace Three, Tower G, Seoul, Republic of Korea	2004	73	264
81.	Grand Gateway Plaza I, Shanghai, China	2005	52	262
82.	Grand Gateway Plaza II, Shanghai, China	2005	52	262
84.	Hotel Panorama, Hong Kong SAR, China	2007	64	261
86.	Post and Telecommunication Hub, Guangzhou, China	2002	66	260
95.	Philippine Bank of Communications, Makati, Philippines	2000	55	258
98.	Sorrento 1, Hong Kong SAR, China	2003	75	256
100.	Mokdong Hyperion Tower A, Seoul, Republic of Korea	2003	69	256

* World ranking.

** A building differs from a tower in that the former is considered to be a structure that is designed for residential, business, or manufacturing purposes. Also, an essential characteristic of a building is that it has floors. Height is measured from sidewalk level of main entrance to structural top of building. This includes spires, but does not include antennas or flagpoles.

Source: Council on Tall Buildings and Urban Habitat, 2008, Web: www.ctbuh.org, and Emporis Buildings, Web: www.emporis.com.

- **Ineffective administration and management:** Problems include shortages of funding, contract disputes, ineffective inter-jurisdictional cooperation, absence of stringent regulations. To illustrate, solid waste disposal is a problem in virtually all sizeable urban regions of the Philippines because of a lack of effective inter-jurisdictional cooperation (metropolitanization), resulting in ‘Not in my Backyard’ (NIMBY) dynamics. Attempts to privatize urban infrastructure development such as water supply systems and airport facilities do not work because of contract disputes.

The poor—rather than the higher-income groups—are the ones who have to live with inadequate infrastructure.

8.2. Infrastructure and the urban poor

Universal service provision may be a state obligation but often it has not happened. International estimates indicate a huge infrastructure need: approximately 500 million urban dwellers lack adequate provision of water and about 600 million lack adequate sanitation in the region, representing 63 per cent and 80 per cent of global proportion respectively.⁷ As mentioned above, the poor and the vulnerable (the children, women, elderly, ethnic minorities and those suffering from HIV/AIDS, ill-health or disability) face many barriers when trying to gain access to essential services. Data on the extent of marginalization are often incomplete and difficult to obtain. What seems apparent is that different groups face different barriers while many groups face multiple barriers. The barriers may be:

- **financial**, such as the inability to pay for a service, the opportunity cost of time spent going and waiting for the service, for example, going to a distant water source and queuing for it;
- **legal**, such as the lack of birth certificate that may hinder school enrolment; or
- **socio-cultural**, including gender discrimination. A common barrier is the well-documented practice of preferential treatment of boys that has resulted in under-nutrition and poor health status of adolescent girls and women.⁸

Women are often the poorest and the largest group that suffer most from the lack of basic services. The poor in metropolitan and peri-urban areas of large cities face severe hardships in accessing water supplies and sanitation. Those without security of tenure are often not eligible, and thus do not receive municipal services. Others whose informal settlements are located outside the formal city borders are beyond the municipal service boundaries and are also not served. Those in smaller towns and secondary cities face equally great service and institutional constraints, compounded by weak local governments and limited infrastructure. As noted in Chapter 4, many countries have decentralized service delivery to local governments but without providing the necessary financial means. Infrastructure is expensive to provide, and there is concern as to whether the poor can afford to pay the initial investment and other ongoing charges, including operation and maintenance. Even if services are available, the quality may differ substantially from that in the wealthier parts of the city.⁹ What then are the alternatives to the traditional public policy and investment in urban infrastructure?

7. UN-HABITAT, 2003a.

8. UNICEF, 2006.

9. UNESCAP, 2008.

Multilateral development banks such as the World Bank and ADB have increasingly argued that where public provision has its limits, private sector and community involvement could be encouraged. At the present time, private finance accounts for about 20 to 25 per cent of total investment in infrastructure (the bulk is still public-sector led). There is a wide spectrum of private sector participation in urban services, ranging from service contracts, management contracts, lease contracts, design-build-operate, build-operate-own and build-operate-transfer contracts, concessions to divestiture.¹⁰ Public-private partnerships are a relatively new experience in the region, largely in water, solid waste and sanitation, began over the past 10 years in such countries as Cambodia, Indonesia, Malaysia, the Philippines, Vietnam, and Vanuatu. For example, local government in Subic Bay, the Philippines, has collaborated with private sector companies to provide infrastructure and modernize the city after US return of the naval base.

Public-private partnerships are not limited to areas with limited service provision. Singapore has recently launched public-private partnership in the development of its new Sports Hub (35 ha). Under the project, the private sector is expected to design, build, finance and operate the facilities for a contract period of 20 to 30 years with potential to subcontract the operation of various activities to consortium shareholders or third parties. The government will own the project site and grant a lease to the successful public-private partnership consortium. It will have usage rights of the facilities as specified in the public-private partnership contract.

Even though international experience with privatization has been mixed, cities in the region are increasingly looking at the private sector and civil society to play active roles in building, financing and managing infrastructure services to improve community living conditions. In Cambodia, Thailand and the Philippines, federations of the urban poor made up of community-managed savings and credit groups have worked with national and city government to design and implement programs to provide housing and sanitation to improve the lives of slum dwellers.¹¹ In Quezon City, the largest city in Metropolitan Manila, the Philippines, community participation, including house-to-house collection by volunteer waste management teams, provides a low-cost means of solid waste management. About 60 per cent of the households in Quezon City are outside the city government's solid waste collection services and uncollected garbage was a common sight before the community project.

Participation by the broad community is not without its challenges. Public-private-community partnerships do not automatically ensure that infrastructure and services will reach the poor. To be effective and sustainable, it would require:

- reform, for example, transparency in contract award to private operators, concessions and cross-subsidy where necessary;
- cooperation with the government, most importantly, the government must support and commit to universal service coverage, establish a regulatory framework and powers for private contractors to operate alongside city governments to provide services to un-served areas and to monitor service provision arrangements; and
- mobilization and capacity building of the communities, for example, information, education and communication with the community to promote hygiene, waste segregation at source and other good environmental awareness and practices.

Most of all, the investment in urban infrastructure has to take place within the framework of the spatial plan to ensure timely delivery of services to urban development.

10. Brook and Tynan, 2004.

11. Garau et al, 2005.

9. Monitoring and Evaluation of Urban Plans

This Chapter will discuss the extent to which monitoring and evaluation of urban plans is an integral part of the planning process within the region. It will attempt to identify and discuss instances where the monitoring and evaluation of urban plans have been innovative.

9.1. Extent of urban plan monitoring and evaluation

Plan monitoring and evaluation do not appear to be a well-documented dimension of urban planning processes in the region. The resultant information is at best patchy even though the importance of urban plan monitoring and evaluation is clear and increasingly recognized. The reason for this could be, as in other regions, a general lack of resources and emphasis on monitoring and evaluation when there are more pressing needs for the limited resources. This planning routine, however, provides invaluable feedback on plan performance that could lead to plan adjustment to better match needs. The lacuna prompts a need for review to further embrace monitoring and evaluation into the urban planning process as the region's urbanization and investments in mega-projects expand.

While some countries have mid-term urban plan review in their planning process (usually the more developed countries), others fail in implementation even if urban plans have been formulated. Take China. As noted in Chapter 3, many Chinese municipalities tend to rely on master planning. However, this is a static approach that is poorly suited to the rapidly growing Chinese cities and metropolitan regions. The urban plans are often unimaginative and unrealistic, prepared using prescriptive planning standards and reflecting existing patterns of land use. They seldom reflect market forces, local citizen preferences and the expanding public infrastructure investments discussed in Chapter 8. As a result, the plans are frequently not respected and do not guide the actions of other government agencies and the private sector. Singapore went through a similar phase in its urban planning in the 1960s, leading to a rejection of the British-style master planning introduced in 1950s and the adoption of strategic planning in the 1970s to guide dynamic urban growth.¹

Regular review of urban plans appears an integral part of the urban planning process in more developed countries like Singapore. Land uses in various sectors are reviewed regularly in Singapore to ensure that urban plans are implemented accordingly (see Section 9.2). The urban development planning process in Malaysia has a mid-term review carried out in the middle of each five-year planning phase to determine whether implementation of the plan is in line with stated targets and development schedules so that sectoral policies and strategies can be adjusted if necessary.²

Elsewhere, in transitional economies such as Vietnam where the urban planning process is profoundly influenced by the former Soviet Union, the process appears silent on urban development project evaluation and comparison between potential projects. Perhaps reflecting the old communist tradition of zero tolerance of criticism and no scrutiny of government performance, there is no guideline for project appraisal prior to planning approval. The planning process does not seem to provide for project monitoring and the urban development plans do not have a goals framework to measure results.³ Equally, in countries with weak

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1. Motha and Yuen, 1999.
 2. Economic Planning Unit, Malaysia, 2004.
 3. Warlters, 2006.

institutional frameworks—for instance, the Philippines—the lack of policy planning and co-ordination at the national level, intensive political intrusion and constant shifting of priorities are contributing to gaps between plan formulation and implementation.⁴

In China, urban planners are increasingly eager to accelerate the improvement of the ecological environment by municipal governments and to establish an urban ecologicalization evaluation system, which evolves from City with Satisfactory Infrastructure, to Garden City, Water-saving City, Green-Transportation City, Model City of Environment Protection, China Human Habitat Award City and Ecological Garden City.⁵ To effectively monitor and evaluate the success of urban plans, appropriate frameworks and quantitative measures must be established and this remains an imminent area for research and development. Resources are needed, including knowledge capacity building: how to conduct effective plan monitoring and evaluation. The state-of-art of plan monitoring and evaluation could be expected to improve with the shift towards more performance-based and strategic planning.

9.2. Some examples of plan monitoring

Three examples are presented to highlight the importance of plan monitoring and evaluation, and some good practices. Singapore provides an example of good plan monitoring and evaluation. In consequence, the city has been judicious in the use of land. Despite being 100 per cent urbanized, only about 50 per cent of the city-state is built-up. Its plans are monitored and reviewed on a constant basis. At the operational level, inter- and intra-agency committees are formed and entrusted with specific roles to review and coordinate different land requirements and resolve land use conflicts. Dialogues are carried out on a regular basis with the industry and the public to review and obtain inputs and feedback on the development plan and development control system.

In other words, planning and development control in Singapore is not static. It is by no means a mechanical, pre-ordained process. Dissatisfied with the rigidity of traditional master planning and development control measures and spurred by global trends, there has been a general move over the years to review the measures, reduce development application processing time, implement electronic development application, engage the stakeholders, and increasingly shift its development control focus from being negative to becoming more facilitating of development. One such change arising from industry feedback and plan review is the introduction of new and more flexible business zones to facilitate business development as Singapore globalizes. Another is the need to retain place identity, which suggestion is taken forward in the Concept Plan 2001 with greater attention accorded to greenery, heritage conservation, place identity, and working in partnership with the community to create a distinctive, vibrant and sustainable city.

Coordination and review appear an increasingly important part of Chinese metropolitan planning. In planning its larger scale extended urban regions that contain more than one metropolitan region—that is, megapolitan regions (Lower Yangtze Delta, Pearl River Delta, Beijing-Tianjin Region)—China planners have prepared a regional structure plan for the Beijing-Tianjin Region (30,000 km²) while a sixteen Municipality Development Co-ordination system is active in the Lower Yangtze Delta (100,000 km²). Ongoing activities of the Municipality Development Coordination System include regular meetings of the mayors of the sixteen municipalities and regular meetings on economic cooperation organized by the policy advisory bodies of each municipality. More megapolitan regions are emerging—for

4. World Bank, 2005c.

5. Qiu, 2007.

example, the Chongqing-Chengdu Corridor and the Harbin-Daqing-Qiqihar Corridor—and there is a need for national government to put forward guidelines to encourage and make official megapolitan scale coordination, that is, the cross-province and cross-municipal strategic planning and development coordination in megapolitan regions.

In the Republic of Korea, typical of other extended urban regions such as Bangkok in Thailand, the Seoul Metropolitan Region (SMR) has limited powers, especially in terms of service delivery. Coordination and related monitoring in plan implementation is of utmost importance in multi-agencies framework. The national government, through the Prime Minister's office, takes the lead in coordinating planning and service delivery that involves cooperation between the Seoul Metropolitan Government (which governs less than half of the population of the extended urban region), and the surrounding local governments that constitute the SMR. The system seems to have worked well. More recently, having largely achieved efficiency objectives, the Seoul Metropolitan Government has shifted to quality of life issues and more qualitative growth management.

From 1998 to 2001, the Seoul Metropolitan Government has implemented a series of reforms, including citizen evaluation system, on-line procedures to handle civil service applications (the open system), and performance-based budgeting. Local residents play an important role in expanding participation and monitoring. The citizen evaluation system (which requires quick internet response from the responsible official) and anti-corruption index are accorded 'the most valuable reform' by the Presidential Commission on Governmental Innovation in the Republic of Korea.

These practices offer ideas for improvement in plan monitoring and evaluation in other cities. They underscore the commitment to planning and an enabling framework for review and evaluation. A simplistic 'growth only' focus is no longer enough and has to be complemented by more integrated thinking that in turn highlights the need for coordination, review and better approaches to public participation. Most importantly, there is the need to keep plan monitoring and evaluation central and not an after-thought in shaping planning outcomes.

10. Planning Education

This final Chapter will discuss the state of planning education within the region. It will discuss the avenues available for training professional planners, and highlight the gaps in planning education.

10.1. Need for planning education

As individual countries in the region become more closely linked with the global economy, and rapid urbanization with its many environmental and social challenges (see Chapter 1), the pressure for efficient urban planning and management is ever increasing. Governments in the region need to consider urbanization as a crucial part of the national economic development process, and take positive measures in managing urban growth if towns and cities are to grow in a sustainable way. Urban planning education is required to supply the necessary human resources for such sustainable urban development. There are two fundamental challenges in urban planning education:

- training of new planners to ensure that there are sufficient numbers of urban planners at all levels of government to deal with the urban planning process; and
- continuing professional development of those already trained (and remaining) in the profession, so that they will have the necessary skill-sets to address the multi-faceted urban problems and changing situations.

As stated in earlier Chapters, capacity deficiency is a region-wide problem. The comparative newness and unprecedented scale of urbanization has accentuated the problem. Improved technical competence in urban planning is required at all levels of government. Beyond the demand for professional urban planning education, most developing countries in the region are facing the problem of weak capacity of local or municipal government. The Commonwealth Local Government Forum has identified the training of local government councillors as an essential need. In certain parts of the region, for example, the Pacific sub-region, it has become even more essential to have adequate training for both elected representatives and local government personnel to develop the capacity for addressing the new situations posed by growing urbanization. At the same time, there should also be a public education program for the community if they are to effectively participate in the planning process. In other words, urban planners alone will not solve the urbanization issues.

10.2. State of planning education

In contrast to the high numbers of urban planning schools in Europe and North America (123 and 99, respectively),¹ there are 31 planning schools in this region,² of which 24 offers professional urban planning undergraduate training³ and 21 with post-graduate taught courses.⁴ Only five offer post-graduate level research degrees in urban planning (see Table

1. See websites of Association of European Schools of Planning (<http://www.aesop-planning.com/>), Asian Planning Schools Association (<http://www.apsaweb.org/>), Association of Collegiate Schools of Planning (<http://www.acsp.org/>), Australian and New Zealand Association of Planning Schools (<http://www.anzaps.org/>), Urban and Regional Planning Degrees in the USA (<http://www.edref.com/college-degrees/architecture/urban-and-regional-planning>), and US News & World Report: America's Best Colleges 2008 (http://colleges.usnews.rankingsandreviews.com/usnews/edu/college/rankings/rankindex_brief.php).

2. Only includes countries in the East Asia, Southeast Asia and Pacific region. Planning schools in Taiwan (5) and Japan (3) are excluded.

3. Only 17 offer bachelor degrees in planning and the other 7 offer bachelor degrees of engineering or science or economics.

4. Of which, 3 are masters degrees in engineering or others instead of planning.

32). Yet, about one third of the world's urban population and 5 out of 21 of the world's megacities are in the East Asia, South-east Asia and the Pacific region (see Chapter 2). More needs to be done in terms of urban planning education.

Table 32. Urban planning education in East Asia, South-east Asia and the Pacific

Focus	Country	Institution name	Taught at under-graduate level ³	Taught at post-graduate level ⁴	Research at post-graduate level and beyond ⁵	
Urban planning ²	China	Tongji University	√	√	√	
		Tsinghua University	√	√		
		Zhongshan University	√			
	Hong Kong SAR, China	Hong Kong University		√	√	
	Republic of Korea	Seoul National University			√	
		Yonsei University ⁶	√	√	√	
		Chungbuk National University ¹	√ ¹²	√ ¹²	√ ¹²	
		Gwnagju University ¹	√	√		
		Mokpo National University ¹	√ ¹²	√ ¹²	√ ¹²	
		Seokyeong University ¹	√ ¹²	√ ¹²		
	Indonesia	Institut Teknologi Bandung		√	√	√
		Universitas Gadjah Mada			√	
		Institut Teknologi Nasional ¹	√ ¹²			
		Sekolah Tinggi Teknologi Nasional Yogyakarta ¹	√			
		Universitas Islam Bandung ¹	√ ¹²			
		Universitas Islam Negeri Alauddin Makasar ¹	√			
		Universitas Islam Sultan Agung ¹	√ ¹²			
		Universitas Komputer Indonesia ¹	√			
		Universitas Pakuan ¹	√			
		Universitas PGRI Adi Buana Surabaya ¹	√ ¹²			
		Universitas Sumatera Utara ¹			√	
		Universitas Tarumanagara ^{1,11}	√		√	
	Malaysia	Universiti Sains Malaysia	√	√	√	
Universiti Teknologi Malaysia		√	√	√		
Philippines	University of the Philippines	√	√	√		
Thailand	Asian Institute of Technology			√	√	
	Chulalongkorn University			√	√	

Focus	Country	Institution name	Taught at under-graduate level ³	Taught at post-graduate level ⁴	Research at post-graduate level and beyond ⁵
		Khon Kaen University ¹		√	
		Silpakorn University ¹	√	√	√
	Vietnam	Hanoi Architecture University	√	√	
	Pacific countries	University of the South Pacific ⁷	√		
	Papua New Guinea	Papua New Guinea University of Technology ⁸		√	
Environment governance	Hong Kong SAR, China	Hong Kong University		√	√
Environmental management	Hong Kong SAR, China	Hong Kong University		√	
	Republic of Korea	Seoul National University		√	√
	Thailand	Asian Institute of Technology		√	√
	Pacific countries	University of the South Pacific ⁹			√
Climate change	Thailand	Asian Institute of Technology			√
Housing	Hong Kong SAR, China	Hong Kong University	√	√	
	Malaysia	Universiti Sains Malaysia		√	
Natural disasters	Thailand	Chulalongkorn University ¹⁰			√
Sustainable and ecological development	China	Tsinghua University			√
	Hong Kong SAR, China	Hong Kong University			√
Water resource	China	Zhongshan University	√		
Transport policy and planning	Hong Kong SAR, China	Hong Kong University		√	
	Republic of Korea	Seoul National University		√	
	Indonesia	Universitas Sumatera Utara ¹		√	
	Malaysia	Universiti Teknologi Malaysia		√	
Institutional and regulation framework	Hong Kong SAR, China	Hong Kong University			√
Monitoring and evaluation	Hong Kong SAR, China	Hong Kong University			√

Note:

1 Not yet a member of Asian Planning Schools Association.

2 Professional training of urban planners. Such training includes theory and practice of planning, land use planning, planning process and planning laws.

3 Only those universities or institutes offer complete degree courses (usually 3–5 years for undergraduate, 2–3 years for masters and 3–5 years for PhDs) focussing on the specific planning related topic are included. Excluded are those offering planning as a subject or a module.

- 4 Normally masters degrees or post-graduate diploma by coursework and may require a minor thesis.
- 5 Includes masters, PhDs degrees and post-doctorate research. Some masters and PhDs degrees may require partial coursework.
- 6 Focus on engineering.
- 7 Focus on land use planning and management. The university is owned by the governments of twelve island countries: Cook Islands, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu and Samoa.
- 8 Focus on physical planning, in conjunction with the University of Papua New Guinea.
- 9 Focus on capacity building and training. Post-graduate degrees not offered.
- 10 Focus on Tsunami research.
- 11 Focus on real estate development.
- 12 Bachelor degrees of engineering or science or economics are offered instead of planning degrees.

Source: Asian Planning Schools Association websites: <http://www.apsaweb.org/>, <http://www.gpean.org/apsa/apsaindex.htm>. Universities and institutes webpages. Email communication from Lee Lik Meng, President, Asian Planning Schools Association.

There are two broad lines of planning education. The first is in capacity building of urban managers. Some universities and training institutions offer executive training programs on certain aspects of urban planning or urban management, which are short training courses on specific urban issues. These are largely capacity-building programs for urban administrators, mayors, planners and other public service administrators. Many are organized with technical assistance from multilateral institutions. As such, they would generally reflect the agenda of the donor organization, and are often project-related (one-off rather than continuous), and may not necessarily respond to the needs of the local authorities. They are also not always integrated in the university curriculum. These training programs, however, play an important role in institutional strengthening. In light of the capacity deficiencies alluded to earlier, national governments need to ensure that such capacity building effort is sustained, and resources are available for this capacity building to all levels of government.

The second thrust concerns the university degree programs in planning (see Table 32). Qualification in urban planning may be obtained from an overseas university (because of colonial legacy, scholarships, etc.) or a local university in the country/region. Most urban planning schools in the region have some association with either an Architecture or Geography discipline, and there are significant groups associated with public administration, environment, community planning and even engineering. Many other higher education institutions in the region offer urban planning studies as a subject or module in degrees related to architecture, urban management, real estate or engineering (for example, those in Singapore). These offer basic technical education but some are still based on approaches from the past, and do not adequately prepare the students for the dynamics of the real world. There is a need for more 'gown-town' (university-city) communication, for universities offering urban planning education to work closely with urban planning professional bodies in their country to understand and reflect the needs of professional planners.

Urban planning education in the region has similar curricula as those found in planning schools in western countries. Most are inherited or a continuation from the colonial time. The inevitable and significant influence of colonial planning system in urban development practice has continued in planning education.⁵ As contemporary urban planning became popular because of the need to control urban development and improve urban living in industrial

5. Except for communist countries and transitional economies where the leading external influence comes from the former Soviet Union.

cities, planning education traditionally has been concerned with the use of land and the planning of that land for the benefit of all. At core is the control of land use, which is at the heart of many statutory and physical planning systems. This preoccupation is reflected in planning education, leading to the criticism that planning education has little regard to the theory of how cities and regions function.

However, some—such as Mendis⁶—have argued otherwise, suggesting that urban planning schools in the region have taught planning in many ways and from diverse perspectives. In particular, they have focused on the unique feature of urban planning as being about intentional collective action which no other section in any modern university addresses. In addition, planning education is not static. It has been suggested that the philosophy of planning education lately has shifted, and the focus of “*planning is on ‘place’, whether at the level of neighbourhood, village, town, region or even the state*”.⁷ The shift has transformed urban planning to include activities of managing the competing uses for space, the environment, and making places that are valued and have identity.

In some urban planning schools (for example, the Asian Institute of Technology in Thailand), the focus is changing, and students are taught more analytical and critical thinking skills to deal with the new urban planning problems and challenges that have emerged within the region. There is more emphasis on environmental planning and management and sustainable development issues. In the past decade, under the initial leadership of Japan, a group of major universities in the region and the Indian sub-continent has come together to form the Asian Planning Schools Association. This has provided a platform for networking and information exchange within the region and with other planning schools associations in the world, largely through the hosting of regular planning conferences.

But, changes are slow. Urban research comes before formal urban planning education. Research output will lead to changes in formal education and training. Sustainable urbanization is perhaps the ultimate goal that urban planners are working to achieve in the region. Yet, a recent survey suggested that in this region, research in sustainable urban development is still in its infancy stage though progressing.⁸ The state of sustainable urban development knowledge in the region remains largely patchy—there are major differences within and across countries—and mono-disciplinary or sectoral in nature.⁹

There is a need for planning education to strengthen and take on an integrated multi-disciplinary perspective to deal with the multiple problems of urbanization. It will have to reflect key competencies that are essential for city management: planning and policy formulation, monitoring and evaluation, program and project formulation and structuring, and the management of service delivery. It is essential that planning education build these competencies. Each city will need to identify the core competencies best for the city, and develop the range of training activities required. Training needs assessment will have to be conducted. Capacity development of stakeholders of the city is an essential component of urban development strategies.¹⁰ Planning education is integral to planning practice. The state of planning and multiplicity of urban challenges in the region requires concerted action in this direction.

6. Mendis, 2007.

7. Mendis, 2007: 2.

8. Progress is being made in countries with higher income like Japan, which is not within the region defined in this report.

9. Yuen and Kong, 2007.

10. Peltenburg et al, 2000.

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