

PART
01

**The State of Asian
Cities: Overview and
Key Findings**



▶ Bangkok, Thailand. Rama VIII Bridge and the Chao Phraya river at sunset.
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1.1 Introduction

Asia is the largest region in the world with 30 per cent of the land mass and 60 per cent of the population. Given its vast geographical expanse, Asia and the Pacific is perhaps also the most diverse region in terms of economy, society, culture, environment and human settlements. Geographically, the 63 countries and territories in the region have been grouped in five subregions: East and North-East Asia, South-East Asia, South and South-West Asia, North and Central Asia, and the Pacific. The vast spread of the Asia-Pacific region features high-, middle- and low-income economies, as well as a wealth of diverse societies and cultures. The region's environment also presents a varied picture with tropical and temperate climates, and some of the world's most arid and water-rich biomes, not to mention the highest mountains (the Himalayas) and gigantic river valleys and deltas (those of the Brahmaputra, Ganges, Indus, Irrawaddy, Mekong, Red, Yangtze and Yellow rivers). Finally, with regard to human settlements, the region is host to highly urbanised countries such as Australia, New Zealand and Japan and others much less urbanised such as Nepal, Papua New Guinea and Sri Lanka (see Figure 1.1).

For all the rapid demographic expansion of Asian cities, with an urbanisation rate of 42.2 per cent in 2010 the region ranked as the second least-urbanised in the world after Africa's 40.0 per cent, although half the world's urban population now lives in Asian-Pacific cities. In 2010, Asian cities were home to 1.76 billion people. While the world became predominantly urban in 2008, Asia is not expected to reach the 50 per cent mark before 2026. The number of mega-cities (those with populations of 10 million or more) is increasing and half (12 out of 21) are now in the Asia-Pacific region. Moreover, mega urban regions, urban corridors and city-regions reflect the emerging links between city growth and new patterns of economic activity.

The Asia-Pacific region has been urbanising rapidly. The phenomenon has both provided urban economies with the human resources they needed and been stimulated by cities' growing prosperity. This is reflected in the fact that the proportion of Asia's urban population increased from 31.5 per cent in 1990 to 42.2 per cent in 2010, the highest percentage increase (10.7 per cent) among all regions in the world (the second highest being the 9.3 per cent increase in Latin America and Caribbean during the same period).

The Asian-Pacific economy is the most dynamic in the world. Growth has been spectacular, especially over the past two decades, enabling the region to contribute as much as 30 per cent of global economic output in 2008. Urban areas have acted as the engines of economic growth and prosperity in most countries whether they are characterized by relatively high incomes (such as China, the Republic of Korea, Singapore or French Polynesia), middle incomes (like Azerbaijan, India, Iran, Kiribati, Mongolia, Pakistan, Timor-Leste or Turkmenistan) or low incomes (such as Bangladesh, Cambodia, Kyrgyzstan or the Lao People's Democratic

Republic). Although this economic momentum has stalled on two occasions – during the Asian financial crisis of 1997-98 and the global economic crisis of 2008-09 – the region has shown remarkable resilience and has bounced back, largely thanks to governments' stimulating policies and domestic demand.

Cities in the Asia-Pacific region are highly productive and creative: the 42.2 per cent of the population living in urban areas contribute 80 per cent of the region's gross domestic product. As they became more integrated into the world economy, Asian cities made the most of comparative advantage, international specialisation and 'economies of agglomeration'. In the process they managed the transition from low-productivity agriculture to higher-productivity industry and services. Indeed, urbanisation in the region has been shown to enhance productivity and increase gross domestic product per head, which doubled from US \$1,795 in 1990 to US \$2,718 in 2008. Building on the demographic expansion and multi-cultural richness that add to creativity, Asian cities are diversifying away from being the 'factory of the world' to international financial centres and 'knowledge economies'.

The Asia-Pacific region is leading the reduction of overall poverty in the world. Between 1990 and 2005, extreme poverty was reduced worldwide from 43 to 26 per cent, largely reflecting a 50 per cent decline (from 49 per cent to 25 per cent of the population) in Asia and the Pacific. The region achieved this on the back of export-led economic growth and expanding domestic demand. For all this success, though, progress on urban poverty reduction remains slow and as a result urban inequality is on the rise. This calls on national governments and local authorities to develop and implement well-focused strategies and programmes to alleviate urban poverty.

Asia is also at the forefront with regard to the 'slum target' set out under the Millennium Development Goals (MDGs), i.e., "By 2020, to have achieved a significant improvement in the lives of at least 100 million slum-dwellers". Asia has made "successful efforts to reach the slum target, with governments in the region improving the lives of an estimated 172 million slum-dwellers between the year 2000 and 2010". However, these efforts must continue as the region is still home to 505.5 million slum-dwellers.

All these remarkable achievements are not without problems, though. In their quest for economic growth, Asian cities have not paid sufficient attention to urban environment and climate change issues. The state of the urban environment in the Asia-Pacific region is very much a tale of two types of city. On the one hand, cities in more developed countries – Australia, Brunei Darussalam, Japan, New Zealand, the Republic of Korea and Singapore – are clean, well-managed, prosperous and safe places to live. On the other hand, fast expanding cities in newly industrialized and rapidly developing countries, which together concentrate large proportions of the region's urban populations, experience serious environmental, poverty and development

FIGURE 1.1: THE ASIA-PACIFIC REGION



Source: www.un.org/Depts/Cartographic/map/profile/escap.pdf

problems. The imminent effects of climate change add to the problems Asian-Pacific cities are facing today. Asian-Pacific countries must focus on improving the environment in their cities and hinterlands. Asian-Pacific cities must prepare for the consequences of climate change, and keep in mind that the poor stand to be most affected. Working towards ‘green growth’, Asian-Pacific economies should also make efforts to improve the eco-efficiency of their economic model if, as the UN Economic Commission for Asia and the Pacific recently noted, they are to meet “the most important challenge to sustainable development in this region: reducing the pressure on the natural resource base while continuing to meet human needs”.

Urban governance, management and finance have featured on the urban policy agenda in the Asia-Pacific region for over two decades now. With the worldwide economic crisis that began in 2008, however, these issues have taken on a more visible and acute dimension. In recent years, many Asian-Pacific cities have sought to improve governance in a bid to achieve sustained economic and social development. Involving civil society groups, grassroots and non-governmental organizations in decision-making has enabled

local authorities to expand the scope of urban governance and experiment with concepts such as participatory budgeting. Participatory decision-making approaches are needed for the management of urban infrastructure and services. Through decentralisation schemes, Asian governments have supported the devolution of power to local authorities. However, many smaller urban settlements are finding it difficult to achieve development goals due to inadequate financial, human, institutional and legal resources or frameworks, as well as poor political leadership. Clearly, national governments must improve the governance of smaller cities and towns, which are growing fast and account for major shares of urban populations. Mega urban regional development is an emerging, complex challenge for national governments and local authorities. In terms of city-to-city exchange of lessons learnt and good practices, the regional and national networks of local authorities provide new avenues to improve urban governance in the Asia-Pacific region.

In the remainder of this Chapter, the following five sections (1.2 to 1.6) summarise the key findings of this first-ever *State of Asian Cities Report*. Section 1.7 outlines the structure of the Report.



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A planned area on the outskirts of Hanoi, Viet Nam. ©UN-HABITAT/Nguy Ha

1.2 Urbanizing Asia

1.2.1 Demographic trends and patterns

Asia is urbanising rapidly but the region's population is still predominantly rural. In 2010, Asia was the second least-urbanised region in the world with 42.2 per cent of the population living in urban areas, or slightly more than Africa's 40.0 per cent. However, compared with 1990 (31.5 per cent), current rates reflect Asia's brisk urbanisation: indeed, over the last two decades, the increase in its urban population equalled the combined populations of the USA and the European Union. No other continent has experienced such an increase in absolute numbers in such a short span of time.

Urbanisation rates vary widely across subregions. North and Central Asia and the Pacific stand out as the most urbanised areas. In the Pacific, this is largely due to Australia and New Zealand, where more than 85 per cent (2010) of the population lives in urban areas. However, among the Pacific island-states, only a few feature large proportions of urban populations while in many others these are very low (under 25 per cent). In North and Central Asia, urban areas are hosts to over 50 per cent of the population in most countries, with the exception of Kyrgyzstan and Tajikistan, where the proportion remains under 35 per cent. This subregion is the only one in Asia-Pacific where the urban population has not increased over the last two decades, demonstrating patterns more akin to those observed in Europe. East and North-East Asia has urbanised rapidly over the last two decades and crossed the 50 per cent mark in 2010. South-East Asia's urban growth has closely tracked that of Asia as a whole. South and South-West Asia remain the least urbanised subregion, with more than 60 per cent of the population living in rural areas. In the more

heavily populated countries of the subregion, like India and Bangladesh, urbanisation rates remain very close to 30 per cent.

While the world population became predominantly urban in 2008, this 'tipping point' will not occur in Asia before 2026. Just as it took 15 years for its urbanisation rate to increase by 10 per cent, Asia is not expected to move from the current 42.2 per cent to 50 per cent before early 2026, still on the back of urban-led economic growth.

This evolution means that over the next decade, two-thirds of the demographic expansion in the world's cities will take place in Asia, which is already host to 50 per cent of the global urban population. Indeed, by 2020, of the 4.2 billion urban population of the world, 2.2 billion will be in Asia. In other words, it is estimated that between 2010 and 2020, a total 411 million people will be added to Asian cities, or 60 per cent of the growth in the world's urban population.

Urbanization in Asia has been a much slower process than in most of the rest of the world. This is attributed to a set of interrelated factors. First, Asian countries have varying definitions of what is 'urban'. Second, most countries define a place as 'urban' based on administrative criteria. Third and on the other hand, there are also cases where municipal boundaries include rural populations. Fourth, where population growth occurs in the urban periphery, which may be beyond municipal or city boundaries, this may not be reflected in official urban statistics.

The Asian-Pacific population is young and the region has benefited from this 'youth bulge'. In 1960, 284 million Asians were aged 15 to 24; by 2007, they were 737 million. During 1960-2007, the proportion of Asia's population in the 15-24 age bracket increased – from 17 per cent in 1960 to 21 per cent in 1985, before beginning to decline (18 per cent

in 2007). A further decline, to 14 per cent, is projected by 2040. Approximately one third of East Asia's increase in gross domestic product between 1965 and 1990 can be attributed to the 'youth bulge'. Although many young people across the region are now better prepared than ever before to enter the workforce, many remain unable to secure gainful employment, and are underemployed or in informal sector employment.

Ageing populations. Many countries in Asia are facing dramatic demographic changes. Some are to expect declines in working populations and concomitant increases in the numbers of aged dependants sometime between 2015 and 2020. However, the process of population ageing is occurring much more rapidly in Asia than it did in Western countries, and in some parts of the region it is also occurring at a much earlier stage of economic development. All across Asia, the numbers of people aged 65 or more are expected to rise significantly. In the year 2000, the average age in Asia was 29 years, but it will rise to 40 years by 2050. That same year an estimated 6 per cent of the region's total population were aged 65 or more, 30 per cent were under 15, and 64 per cent were in the working-age group of 15 to 64 years. It is estimated that by 2050, the proportion under 15 will drop to 19 per cent, and the proportion of those aged 65 or more will rise to 18 per cent.

1.2.2 The factors behind urban growth

In the Asia-Pacific region, natural increase, rural-to-urban migration and reclassification of areas from 'rural' to 'urban' are the key factors behind urban growth. In many South Asian countries, where urbanization levels are low compared with other subregions, natural increase has accounted for the bulk of urban growth in recent decades. In East Asia, where urbanization rates are higher than in other parts of the region, rural-to-urban migration is often the most prominent factor behind the ongoing rapid urban demographic growth. Given the cities-led economic growth and the concomitant increasing demand for human resources and land in the region, many countries are experiencing rapid urbanization as a result of rural-to-urban migration and the reclassification of areas from 'rural' to 'urban'.

Internal migration. Rural-urban migration is the predominant form of internal migration; others include rural-rural, urban-urban and urban-rural migration. Rural-urban migration is generally beneficial to both rural and urban areas. It provides migrants with better opportunities, and remittances enable rural households to improve incomes and sustain local development. With increased incomes, migrants are able to ensure against a number of risks and to invest in rural housing and economic activities, especially in the absence of well-functioning credit markets in rural areas. Due to rural-urban migration, cities benefit from steady supplies of labour to fuel economic growth. Moreover, migration opens opportunities for women and gives them access to jobs outside home, thereby contributing to their empowerment.

Circular migration. In many Asian countries, circular migration appears to be emerging as a dominant trend where

trips vary from daily commutes to those lasting several months and where urban migrants retain strong links to rural areas. This is a coping mechanism, enabling them to keep families in rural areas and migrate to the city during lean agricultural seasons.

Migration and regulation. While most Asian countries do not impose any barriers to internal population movements, some have adopted mechanisms to regulate migration to urban areas. This is done through a combination of restricted entry to urban areas and rural employment-creation programmes. In Viet Nam, temporary permits are now granted to ensure a steady supply of labour in cities. Ho Chi Minh City is host to around 700,000 new registered temporary migrants; these include so-called 'KT3' migrants with temporary registration for a period of six months and more; and 'KT4' migrants with temporary registration for a period of under six months.

International migration. As in the case of internal migration, people move across international borders in search of better economic opportunities or safety and security, although such movements face more restrictions than domestic migration, through national migration policies. However, international migration in the Asia-Pacific region has become easier, especially within sub-regional economic groupings such as the Association of Southeast Asian Nations (ASEAN). In fact, the number of international migrants in Asia nearly doubled between 1960 and 2005, growing from an estimated 28 million in 1960 to more than 53 million in 2005. In the Pacific subregion, the number increased from two to five million over the same period.

International migration in Asia is propelled by various 'push' and 'pull' factors. The 'push' factors behind cross-border emigration include, *inter alia*, underemployment, protracted natural disasters, wars and internal conflicts. For example, war and drought have triggered cross-border emigration from Afghanistan into Iran and Pakistan, as has internal conflict from Myanmar into Thailand. Better economic opportunities, regional economic integration, changes in labour markets and technical progress constitute some of the 'pull' factors behind international migration. The Asia-Pacific region is a major source of permanent emigration to Australia, Canada, Europe, New Zealand and the United States. Asian countries like China, India and the Philippines rank among the top 10 sources of immigrants to those more developed countries. Some countries like Thailand and Malaysia are both receivers and senders of international labour. For instance, Thailand exports labour to places such as Singapore and Taiwan, Province of China, and imports labour from Cambodia and Myanmar. The main reason for importing labour is the continuing need for cheap workforce, in order to be able to produce goods and services in countries where economic development has already reached, or is on the threshold of reaching, industrialized status. Another reason is the depletion in the number of people amenable to agricultural and manual work in many host countries, which creates opportunities for foreign low-skilled workers.

The benefits of cross-border migration. A major benefit of international emigration is the flow of remittances to the home countries. In 2007 in the Asia-Pacific region, migrant remittances totalled US \$121 billion, which is equivalent to nearly two-thirds of all foreign direct investment in developing countries. In India, China, Pakistan, Bangladesh and the Philippines, remittances are a major source of foreign currency holdings. At the household level, remittances improve economic security on top of providing income for investment, savings and entrepreneurial activities. Emigrant remittances have boosted urban real estate markets, as housing and property are safe and profitable forms of investment.

1.2.3 Mega-cities, mega urban regions and urban corridors

The number of mega-cities (those with populations of 10 million or more) is increasing around the world and half of the world's mega-cities (12 out of 21) are now found in Asia. Seven of the 10 most populous cities of the world are in Asia, including Tokyo, Delhi, Mumbai, Shanghai, Kolkata, Dhaka and Karachi. Many of these mega-cities have grown on the back of concentrations of urban-based manufacturing industries. Over time, however, the top segments of the services sector have come to concentrate in these cities, too, in order to benefit from agglomeration economies. Many mega-cities are also the seats of power, either political power as national capitals or as major economic or financial centres. People, infrastructure and capital are concentrated in mega-cities, and so is the political and social power that reinforces mega-cities' role as the engines of national economic development. Public investment in infrastructure fuels urban agglomeration economies. The services sector is particularly prone to agglomeration and typically prefers central city locations.

Mega-cities account for only 11 per cent of Asia's urban population, but like their counterparts around the world they act as dominant forces in both the regional and global economies, on top of significant other contributions to their respective countries. They are knowledge centres, often concentrating the best national educational and research institutions, as well as cultural centres, allowing a variety of cultures to coexist and thrive.

Many urban agglomerations in Asia are evolving into mega urban regions and urban corridors, which are very large urban areas the size of fully-fledged regions and are often referred to as Extended Metropolitan Regions (EMR). Many such mega urban regions have emerged in Asia. For example, the Tokyo-Yokohama-Nagoya-Osaka-Kobe-Kyoto 'bullet train' urban corridor acts as the backbone of Japan's economic power, while the Beijing-Tianjin-Tangshan-Qinhuangdao transportation corridor in North-East China is a huge mega urban region characterized by almost unbroken urban, built-up areas.

Mega urban regions and urban corridors are part of the restructuring of urban territorial space that comes with globalization. While the concentration of economic activities in these large regional urban areas stands out as one of the

positive outcomes of agglomeration economies, the sheer size of these areas can generate diseconomies of scale. Mega-cities at the core of mega urban regions are often beset with high real estate prices, traffic congestion and poor environmental quality. These 'negative externalities' drive firms and households away from core city locations to the periphery for cheaper land and better environmental quality.

1.2.4 Small- and medium-sized cities and towns

Today, 60 per cent of Asia's urban population lives in urban areas with populations under one million. Small- and medium-sized towns typically perform a variety of roles: (i) They serve as local 'economic growth centres', i.e., markets for rural products and urban services. (ii) They act as 'bridges' between rural areas and large urban centres. In a rapidly growing economy, where major activities are concentrated in large urban centres, small- and medium-sized cities play an important role, providing indirect links between the rural and the global economy through connections to large conurbations. This is especially true of those small cities located in mega urban regions. (iii) Many small towns also serve as administrative headquarters for district or sub-district administration. (iv) Small- and medium-sized cities often serve as temporary 'stepping-stones' for rural migrants on their way to further destinations. In many countries, these consecutive urban-to-urban migration streams are as significant as rural-to-urban flows.

Small- and medium-sized cities act as economic growth centres, but most lack adequate infrastructure and services. Despite their significant role as links between rural and urban economies, small- and medium-sized cities feature poor infrastructure – unpaved roads, inadequate water supply and sanitation, poor telephone and Internet connectivity, and erratic power supply. Most Asian countries have deployed policies to strengthen the role of small- and medium-sized towns, but it is generally agreed that they have not quite delivered. One frequent reason was that such programmes were designed at the national level and failed to recognize the factors specific to each urban centre.

However, there is a silver lining for small- and medium sized cities, as the trend toward decentralisation seems to have worked well for them. In many Asian countries, smaller cities have begun to benefit from incipient political and administrative decentralisation, under which national governments are devolving some of their powers, including revenue-raising, to local authorities.

1.2.5 Urban densities and the pace of urbanization

Asian cities are characterised by high population densities and decreasing annual growth rates, averaging 2.2 per cent in 2010 (against 3.8 per cent in the 1980s). Average urban densities range from 10,000 to 20,000 per sq. km, which is almost double the rates in Latin America, triple those in Europe, and 10 times those found in US cities. Asian cities have featured

high population densities for centuries. Today, demographic densities vary significantly within built-up areas. Asian cities owe their high densities to several factors including available transport modes, market forces, lack of serviced land in the urban periphery, and planning or other government rules and regulations.

In Asia as a whole, urban population growth rates have been declining since 1990: from an average 3.17 per cent between 1990 and 1995 to 2.28 per cent between 2005 and 2010. The Pacific subregion also experienced a minor decline from 1.5 per cent during 1990-1995 to 1.3 per cent during 2005-2010.

1.2.6 Urbanization in Asia: Diagnosis and policies

The basic diagnosis based on the foregoing analysis is that although Asia-Pacific's population is predominantly rural, the region is urbanizing rapidly and that with the rapid pace of economic development and globalization in the region, urbanization is inevitable. While there are similarities with urbanization patterns prevailing in other regions of the world, urbanization in Asia and the Pacific also has some unique features.

What, then, makes the Asian urbanization process different from other continents? The first defining feature is that Asian cities are in a constant state of flux and a major difference lies in the scale of the demographic expansion. Over the last two decades (1990 to 2010), Asia's urban demographic expansion amounted to over 754 million people. Second, urban Asia features high population densities – indeed, the highest in the world, as noted earlier. Third, Asian cities feature mixed land-use development. More specifically, residential areas sit next to commercial activities, just as traditional buildings stand alongside modern skyscrapers, and formal and informal activities take place in the same space.

This diagnosis clearly suggests that the scale of Asia's urban population growth calls for significant increases in infrastructure investment. Given the continent's large population and rapid economic growth, it is imperative to ensure that urban development in Asia is 'green' and low-carbon. Short of this, the growth and prosperity of Asian cities could be seriously jeopardised. In the past, adequate investment in urban infrastructure has been lacking as policy-makers did not view urbanization as a process that was compatible with economic development. More specifically, the notion prevailed that urbanization *per se* did not contribute to development, and instead came only in response to poor economic and living conditions in rural areas. Public policy was regarded as biased towards cities which, in turn, increased the attraction of rural people to urban areas. In many countries this was evident in restrictive policies regarding rural to urban movements of people, combined with a lack of funding for urban infrastructure development.

The turning point in many Asian countries came during the 1990s with a shift of focus in national policies that clearly linked urbanization and economic growth. This came

with a recognition that economic growth required links between national and global economies and that this could be achieved through urban development. Subsequently, many Asian countries have explicitly or implicitly promoted urbanization. All of this has contributed to increased urban demographic growth, specifically due to rural-to-urban migration and reclassification of areas from 'rural' to 'urban'.

Many Asian countries have benefited from the 'demographic dividend' and have achieved rapid economic growth. Far from being considered a drawback, demographic size is now seen as providing major benefits such as large domestic markets, cheaper labour, large pools of skilled technical staff and more generally the ability to tap the enormous potential of the Asian population. The positive benefits deriving from urbanization include a diverse and strong economy, together with the potential for poverty reduction. For the Asian economies to continue to benefit from the positive demographic trends (the 'demographic dividend') related to youth, they will do well to provide more opportunities in order to harness the potential of the younger population.

The ageing phenomenon and reduced fertility rates will affect most Asian countries within one or two generations. Faced with an unprecedented pace of ageing of their populations, Asian cities should prepare to cater to the special needs of the elderly, including housing, medical facilities (and attendant financing), changes in building regulations, and changes to urban planning standards. Moreover, education and urbanisation policies should be better coordinated to address this problem.

Urbanization in Asia is broad-based rather than concentrated in just a few cities. Mega-cities (with populations over 10 million) and metropolitan cities (with populations ranging between one to 10 million) are host to 11 and 29 per cent of Asia's urban population respectively. Owing to agglomeration economies, the region has also witnessed the rise of mega urban regions and urban corridors. Governments should take full advantage of the agglomeration effect and economies of scale provided by mega-cities and mega urban regions, which are already the engines of economic growth and prosperity in many countries. Small- and medium-sized cities are host to 60 per cent of urban populations and will continue to do so in the next two decades. For small- and medium-sized cities to contribute to local and national economic development, policymakers should focus on their needs regarding infrastructure and basic urban services, and increase their capacities for improved urban planning, management and governance.

Most Asian countries are still in the early stages of urbanization. This gives them an opportunity to prepare for urban expansion. If they are able to plan and pave the way for such expansion with proper infrastructures, they will find themselves in a better position to alleviate the negative aspects of urbanization, such as congestion, pollution and slums. For this to happen, urban policies must become part and parcel of national development policies.

1.3 The Economic Role of Asian Cities

1.3.1 Asian cities are resilient engines of economic growth

Asian cities are economically resilient, as demonstrated by their performance in times of crisis. Economic growth in Asia-Pacific has been robust over the past two decades, except for the short 1997-98 regional financial crunch and the effects of the 2008-09 global economic crisis from which the region is now recovering. The recent economic crisis, which caused world economic growth to slow down from 2.6 per cent in 2007 to 1.0 per cent in 2008, undermined the strength of export-orientated Asia-Pacific economies, where growth fell from a robust 4.7 to 2.7 per cent. Although the effects of the global economic crisis have been uneven across Asian-Pacific subregions (see below), domestic demand and timely fiscal responses (e.g. higher public spending) have enabled the Asian and Pacific economies to sustain economic growth. The pace was relatively robust where domestic demand accounted for large shares of economic growth, such as in India, the Philippines, Viet Nam and Indonesia.

The subregions of Asia and the Pacific feature variations in economic growth vis-à-vis their urbanisation levels. The data on urbanization and gross domestic product for 2008 shows that in the Pacific subregion, which has the highest urbanization level (71 per cent), the share of urban areas in the combined output is 84 per cent. East and North-East Asia features the highest (86 per cent) of gross domestic product generated by urban areas where 47 per cent of its population lives. In South-East Asia, urban areas contribute 79 per cent of the subregion's combined output and account for 46 per cent of its population. In the South and South-West Asia, urban areas account for 33 per cent of the total population and 76 per cent of the subregion's gross domestic product. In North and Central Asia, where cities and towns host 63 per cent of population, the urban share of combined output is as high as 84 per cent.

Urban-led economic growth in the Asia-Pacific region has resulted in changes in employment patterns associated with the demographic expansion of cities. The proportion of service sector employment in the region increased from 25.8 per cent in 1991 to 36.4 per cent in 2007, concomitantly with a decline in the share of agriculture (from 52.9 to 39.1 per cent). Changes in manufacturing have occurred at a slower pace in the Asia-Pacific region, with a slight overall decline in the 1990s (from 20.5 per cent in 1991 to 19.7 per cent in 2000).

Although Asian economic growth is rapid, job quality is a cause for mounting concern. Job quality is measured as the proportion of employment that involves own-account workers (self-employed) or contributing family workers (capturing aspects like wages and benefits, standard and non-standard forms of employment, working time, work-life balance and working conditions). In 2007, in the Asia-Pacific region as a whole, these workers accounted for 58.8 per cent of employment;

their shares in total employment were the highest in South-East Asia (74.4 per cent) and South and South-West Asia (60.1 per cent). Overall, the quality of jobs being created in Asia and the Pacific remains poor.

The employment elasticity of growth has decreased in the Asia-Pacific region. This unfavourable pattern holds for most countries and cities in Asia. Another distinctive feature is that for all the rapid growth in the formal economy, the informal sector has remained stable or increased marginally in size. Globalization has brought competition in the labour market as well, and wages in the formal economy have risen. As a result, employers tend to hire fewer workers and look to improve productivity. In the manufacturing sector, automation has reduced labour-capital ratios.

Many Asian governments provide incentives to attract foreign investors; however, unless the policy mix is right, capital-intensive investment may not create new jobs (resulting in “jobless growth”) and can even lead to downsizing or retrenchment (i.e., job losses). Those investors looking for cheap rather than skilled and productive labour tend to favour informality. Moreover, supply-side support as provided by governments to enhance competitiveness in global markets (through incentives or subsidies for export promotion, technology upgrading, tax holidays, etc.) is typically biased in favour of larger industrial enterprises. These policies may not only prevent smaller enterprises from developing their own potential or gaining access to global markets, they may also crowd informal operators and workers altogether out of a given market segment.

1.3.2 The main drivers of Asia's urban economies

Cities in the Asia-Pacific region are well positioned to capitalise on the opportunities provided by their own demographic expansion as well as the forces behind globalization. Five inter-related factors act as key drivers of urban economies in the Asia-Pacific region:

Export-led growth: Exports are a significant source of economic growth and employment for many Asian-Pacific countries, and a factor of integration in world markets. Between 1990 and 2007, the countries in the region saw a significant increase in the contribution of exports to gross domestic product.

Urban infrastructure and services: Cities with proper infrastructure facilitate higher productivity and the resulting higher returns attract foreign direct investment. Within the Asia-Pacific region, urban infrastructures display wide variations in terms of quality. In this regard, East and North-East Asia provides the best the region has to offer and therefore has attracted larger amounts of foreign direct investment than any other subregion. Cities with Special Economic Zones, which are promoted by national and local governments alike, fare much better for infrastructure and service provision, as exemplified by Shenzhen in China.

Foreign direct investment and competition among cities: Foreign direct and domestic investment is typically attracted to major

cities with good transportation and communications systems, and resource-rich regions with raw material supplies. The effect of competition among cities has been the concentration and specialization of industrial development in geographic space, as cities increasingly find their own special niches in the world market. In Asia, this is demonstrated by Shanghai, Singapore, Tokyo and Hong Kong, China, which dominate regional finance and transport logistics. Other cities, like Bangkok, dominate the auto industry, while Bangalore and Taipei are global centres of information technology research and development.

Cities' connectivity to markets: Economic development depends critically on connections between production centres and markets. Asian-Pacific policymakers rightly see infrastructure as an essential growth factor. The two fastest-growing economies in the region, China and Viet Nam, are currently investing around 10 per cent of total output in infrastructure, and even at that rate they are struggling to keep pace with demand for electricity, telephones and major transport networks. Plans for economic development in the Greater Mekong area – the Lao People's Democratic Republic, Cambodia, Thailand, Viet Nam, Myanmar and China – are centred on greater integration of transport and energy markets. In India, investment in infrastructure is a top priority among policymakers.

Business practices: Cities that provide better business environments attract more domestic and foreign direct investment, and in turn profit from economic growth. Some commonly used parameters to assess good business practices include ease of starting a business, registering property, getting credit and enforcing contracts. Based on these parameters, China's coastal cities offer the friendliest business environments. It is up to low-income cities to follow suit through enhanced efficiency and modern technologies, while maintaining low costs for business.

1.3.3 Urbanization and the informal economy in Asia

Synergies between the formal and informal sectors account for the socio-economic dynamism of Asian cities. These feature very well-developed formal sectors in manufacturing and services that resemble those in Western countries, while simultaneously hosting large informal economies that underpin the success of the formal economy in fast-changing circumstances. The linkages between informal workers and formal businesses can be both direct and indirect. The informal economy includes the full range of “non-standard” wage employment conditions which flexible specialization has given rise to, such as sweatshop production, home-workers, contract workers, temporary or part-time work, and unregistered workers. Seen from this perspective, the informal economy includes many disguised wage employees who may not have direct links with a formal sector enterprise, but who are clearly dependent on the formal sector for the inputs, equipment, work location and sale of the final products they make.

The informal sector is a part of the urbanisation dynamics in

Asia. As urbanisation continues, informal economies keep expanding in Asian cities, providing basic livelihoods to new residents. A significant informal economy has been a characteristic of the early phases of urbanisation in almost all economies around the world, and therefore has often been seen as a prerequisite in the transition from developing to more developed economies.

Although the linkages between the formal and informal sectors in Asian cities do contribute to the economic dynamism of the region, a few issues call for policy attention, as follows:

Data on the contribution of the informal sector to growth: While it is widely accepted that the informal sector is an integral part of any urban and national economy, much of the information available relates to employment data, rather than the contribution of the sector to the economy as a whole, and its influence on urban growth.

Factors behind the existence of informal sector enterprises: The proliferation of informal enterprises in cities often comes as a by-product of three types of administrative inadequacy: (i) excessive government and local authority control, (ii) the long drawn-out procedures for permits and licences, and (iii) the inefficiency and petty corruption involved in doing business.

The globalization of Asian cities has also led to new and flexible forms of production relations, especially in the service sector – such as those found in call centres or in the hiring of retail sector staff. Employment in these new urban enterprises would often be classified as informal because they do not come under the purview of any regulatory framework.

Gender inequality: For most of the last two decades, women's participation rates in the Asia-Pacific region have been consistently high, i.e., above 65 per cent, in East and North-East Asia, while remaining under 35 per cent in South and South-West areas. With rapid economic growth in the region, more women are joining the labour force than before. However, much of the increase in female participation in the labour force is in the more ‘invisible’ areas of informal work, such as domestic labour, piece-rate homework, and assistance in small family enterprises, which offer low or irregular remuneration (where any) and little if any access to social security or protection. Greater insecurity and lower earning capacities in the informal sector make women workers more vulnerable. Even in the formal sector, the female labour force tends to be much more occupationally segregated than is the case for male counterparts.

Labour issues: The coexistence of the ‘modern’ or formal sector with the ‘traditional’ or informal sector has become a more acute and distinctive feature of labour markets in many Asian cities and, to a significant extent, a factor in their global manufacturing competitiveness. In most Asian cities, the informal economy has been burgeoning (providing resilience in times of crisis), but for most informal workers and small businesses work remains insecure despite gruelling, overextended working days.

Informal sector and revenues: In cities where a majority of the economy is in the informal sector, local authorities are unable

to generate large revenues. This is because the informal sector, given its low profit margins, is often not in a position to pay tax to the government. As a result, public sector investment in urban infrastructure and services remains low which, in turn, contributes further to the prevalence of informality in urban areas.

1.3.4 Asia – beyond the ‘factory of the world’

Asian cities are diversifying away from serving as the factories of the world to turn into innovative service providers.

The Asia-Pacific region enjoys the unique status of ‘factory of the world’. Having developed an independent, integrated regional value chain of supply, production and sales, Asia has turned into the world’s manufacturing centre. As part of this process and since the 1980s, the region has created a number of manufacturing bases through the integration of global capital and the region’s cheap labour. However, in recent years, manufacturing has undergone a major reshuffling within Asia. The process has involved the geographic dissemination of production with assembly operations migrating to lower-wage economies, while more developed Asian countries are specializing in high-value-added components and capital goods.

Asian cities as ‘knowledge economies’. Today, Asia no longer is just a source of cheap manufacturing goods and services. The transformations in global markets as well as production and innovation systems are providing new opportunities for Asian firms that seek to improve their innovative capabilities. The process of outsourcing, which initially sought to exploit the labour wage arbitrage, is increasingly focusing on the need to access and tap fresh talent. This pursuit is the primary driver of next-generation outsourcing, which increasingly includes some of the research and development (R&D) functions of major Western companies. This comes as an effective recognition of Asian cities’ growing potential for innovation on a global scale, on top of worldwide production and distribution networks. In 1997, 59 per cent of US corporate research and development sites were located within the USA with only 8 per cent outsourced to China or India. By 2006, the combined share of these two countries had more than doubled to 18 per cent while the US share had declined to 52 per cent.

Asian cities as financial centres. Financial services are an attractive business sector for cities. They cater to the needs of foreign and domestic investors, both direct and indirect. They are also a major economic asset on a national, regional and global scale, as they represent a dynamic, high-growth sector. Financial services are highly mobile, but more than other sectors are also directly influenced by policy (banking and financial regulation) and planning (including the property market). In addition to Tokyo, Singapore and Hong Kong, China, a few Asian cities have made efforts to turn into international financial centres. Shanghai has already emerged as one, on the back of extensive institutional and regulatory change and innovation. India’s business capital, Mumbai, is aspiring to become an international financial centre, but must

overcome major hurdles if it is to meet a number of essential requirements in terms of cost-effective and high-quality physical and regulatory infrastructure.

Human capital and Asian cities. Whether Asian cities aspire to serve as manufacturing centres, knowledge hubs or financial centres, they must focus on developing human capital in order to meet fast-growing needs for skilled labour. Education is highly valued in Asian society, and therefore a number of countries have established many quality educational institutions, with nationwide programmes to improve literacy and education.

1.3.5 The Asian urban economy: Diagnosis and challenges

Dynamic Asian cities have been the main force behind the sustained economic growth of national economies, and have demonstrated their economic resilience over the past two decades. However, the key economic challenge Asian cities are facing in the early 21st century is to manage the trade-off between the positive and the negative externalities attached to urban areas, and to do so in coordination with inclusive, national or regional strategies that promote the geographical spread of the benefits of urbanization and economic growth. If they are to meet this challenge, cities across the region must build the institutional capacity and strategic vision that will enable them to manage economic growth in a more inclusive way.

For this to happen, and in line with the earlier recommendation that urban policies must become part and parcel of national development policies (see section 1.2.6 above), cities must pay attention to the way infrastructure programmes fit with broader development strategies and political circumstances, how those strategies are formulated and how they bring about tangible outcomes. It is for political leaders and senior policymakers in the Asia-Pacific region to evolve a vision for long-term development based on holistic approaches that merge spatial policy with macro-economic, industrial, agricultural, energy, environmental and labour policies. This vision must combine the diversity of domestic needs into a region-wide strategy that is based on inclusiveness and anticipates on inevitable future economic opportunities, shocks and crises.

In the Asia-Pacific region, cities lead economic growth as they are well-positioned to capitalise on the opportunities provided by their own demographic expansion, the forces behind globalization, the availability of ‘better’ infrastructure and services (compared with the hinterland), their connectivity to markets and efficient business practices. However, in several cities across the region, economic growth has been restricted by the bottlenecks associated with institutional frameworks, human resources and infrastructure. Regulatory red tape, taxation and corruption combine to stifle business potential and can significantly cancel out other strengths a city may possess. National governments in the Asia-Pacific region would do well to provide improved urban infrastructure and services, better connectivity to markets and business-



▲ Slum area in Bandung, West Java Province, Indonesia. ©Veronica Wijaya

friendly environments to attract domestic and foreign direct investment in order to facilitate urban-led economic growth. Fiscal and regulatory incentives should be reviewed and expanded to attract more domestic and foreign investment in Asian cities.

Synergies between the formal and informal sectors account for the socio-economic dynamism of Asian cities. However, the urban informal economy is usually seen as a problem by policymakers even though it generates many million dollars in revenues. Large urban informal sectors have provided employment to the millions who are unable to secure formal jobs. Informal-sector incomes may not be enough for the urban poor to pull themselves out of economic deprivation, but at least they provide basic subsistence. Informal markets also give the urban poor access to various housing options which suit their incomes although admittedly they are far from ideal. The informal sector should be supported rather than harassed, and play a more positive role in employment

generation. Public policies should enhance the positive linkages between the formal and informal sectors of the economy, ensuring that work conditions are decent for all, including women.

It is a welcome development that Asian cities are diversifying away from the 'factories of the world' to innovative service providers. Whether they serve as manufacturing centres, knowledge hubs, financial centres or innovative service providers in the future, Asian cities will be expected to develop complementary strategies for three specific purposes: (i) readjust their own economic specialisation, (ii) develop technical and vocational skills for new labour market entrants, especially for the urban poor, and (iii) develop quality education systems that can promote problem-solving and critical-thinking abilities, in addition to information technology skills. These will make Asian cities even more vibrant and dynamic in the face of future economic challenges.

1.4 Poverty and Inequality in Asian Cities

1.4.1 Poverty and Inequality

The Asia-Pacific region is leading the reduction of overall poverty in the world. According to recent estimates, extreme poverty was reduced worldwide from 43 per cent in 1990 to 26 per cent of the population in 2005. This achievement was largely due to a significant reduction in Asia and the Pacific, where overall extreme poverty was nearly halved from 49 to 25 per cent over the same period. This remarkable progress in the region has been largely due to East and North-East as well as South-East Asia. However, urban poverty is a different issue.

Economic growth has not benefited all urban dwellers in the region equally. Urban poverty in Asia is declining more slowly than its rural counterpart. In East Asia and between 1993 and 2002, for example, rural poverty declined from 407 to 223 million, a difference of 184 million (from 35 to 20 per cent). During the same period, urban poverty in the subregion declined from 28.7 to 16.3 million (from 6 to 2 per cent).

Urban poverty in Asia is significant and increasing. In South Asia, for example, the number of urban poor increased from 107 to 125 million between 1993 and 2002. The factors behind this phenomenon and the slower decline compared with rural poverty are three-fold:

- *The pattern of urban development:* Urban development in Asia has largely been driven by concentrations of local, national and, increasingly, foreign profit-seeking enterprises. This process has effectively excluded the poor, as the channels through which they might have benefited from this wealth creation were simply lacking in Asian cities.
- *The problem of poverty baselines:* In practice, poverty measurement methods are identical, although the baselines are theoretically different between urban and rural areas. In urban areas, the income required for essential goods for a family of four is relatively higher than that for a similar rural household. The added deprivation in urban areas is not just due to inadequate income but also to other factors such as inadequate housing and lack of access to services. The urban poor also face challenges due to their extralegal status, which makes them vulnerable to unlawful intrusions and natural hazards as well.
- *Policy focus:* In many Asian countries, given the predominant rural population, national policy-makers have often considered poverty as a rural, not an urban problem. Therefore, poverty alleviation policies have focused more on rural than urban populations (as evidenced in the different outcomes).

Urban inequality is rising in the Asia-Pacific region. Inequality is not so steep in Asia-Pacific cities as in their African or Latin American counterparts. However, urban inequality is on the rise in the Asia-Pacific region. In Asia's three largest countries between 1990 and 2005, inequality increased in urban areas: in China from 26 to 35 per cent, in India from 34 to 38

per cent, and in Indonesia from 35 to 40 per cent. Rising inequality in Asia reflects government focus on economic growth rather than reducing inequality (such as through redistribution).

1.4.2 Meeting the Millennium slum target in Asia

Slums in Asian cities reflect a deep-seated phenomenon of structural poverty. They come as an emanation of social, political and institutional disparities and deprivations that are exacerbated by the pressures of sustained urban growth. Slums effectively segregate urban areas into the "rich" and the "poor" city – what UN-HABITAT refers to as the 'urban divide' resulting from economic, social, political and cultural exclusion. Slums are also the most glaring physical manifestation of the inconsistency between the demand for labour in Asia's urban areas and inadequate supply of the affordable housing and infrastructure the workforce needs for the safe, decent living conditions they are entitled to expect.

Since the year 2000, the lives of 172 million slum-dwellers in Asia have been improved through various policies and programmes. As reported by UN-HABITAT a few months ago, "Asia was at the forefront of successful efforts to reach the Millennium slum target between the year 2000 and 2010, with governments in the region improving the lives of an estimated 172 million slum-dwellers; these represent 75 per cent of the total number of urban residents in the world who no longer suffer from inadequate housing. The greatest advances in this region were recorded in Southern and Eastern Asia, where 145 million people moved out of the "slum-dweller" category (73 million and 72 million, respectively); this represented a 24 per cent decrease in the total urban population living in slums in the two subregions. Countries in South-Eastern Asia have also made significant progress with improved conditions for 33 million slum residents, or a 22 per cent decrease."

The Asia-Pacific region remains host to over half of the world's slum population, and huge sub-regional disparities remain. In 2010 this amounted to an estimated 505.5 million, which was distributed as follows: 190.7 million (or 35 per cent of the urban population) in South Asia; 189.6 million (28.2 per cent) in East Asia; 88.9 million (31 per cent) in South-Eastern Asia; 35.7 million (24.6 per cent) in Western Asia; and 0.6 million (24.1 per cent) in Oceania/Pacific.

1.4.3 Land and housing

Poor access to decent, secure, affordable land is the major factor behind Asia's abundance of slums. In many Asian cities, much larger numbers of people are without any form of secure tenure than with secure land titles. The poor are priced out of formal land markets, on top of which the opportunities for them to squat on unused public land are declining. With rapid economic growth, many private landowners and government agencies continue to develop vacant urban land and evict slum-dwellers for commercial development or urban infrastructure projects. Evicting slum households might be an

effective way of clearing land for other uses, but almost all evictions, directly or indirectly, result in increased poverty.

For the poor, the best option will always be secure tenure on the site they are occupying. This enables them to stay in the same place without dislocation or disruption to their livelihoods and social support systems. An alternative is to make tenure collective through long-term, non-individual leases, or granting land titles to community cooperatives. However, collective tenure can work only where the community is well organized. Collective tenure rights can act as powerful buffers against market forces, binding communities together and giving them good reason to remain that way. A collective community structure can act as a significant survival mechanism.

In many Asian countries, shelter does find a prominent place in national policy, but the public resources devoted to housing remain well short of requirements. In the poorer Asian countries, too many households need homes, and governments cannot afford to build even a fraction of the numbers that are required. Asian countries have attempted to address the housing problem through five main institutional models:

Public housing: Singapore, the Republic of Korea, and Hong Kong, China, have implemented public housing projects as part of government housing policies and their vigorous pursuit of slum-free cities. In Singapore, for example, such efforts have resulted in a private/public housing ratio of about 20 to 80.

Public-private partnerships in housing: Several Asian cities have established partnerships with private developers to stimulate affordable housing construction for the poor. In most cases, commercial development rights on plots were granted to private sector enterprises who, as a *quid pro quo*, would build affordable housing on a specified percentage of the total land under development. Examples include the *Ashraya Nidhi* ('shelter fund') programme in Madhya Pradesh, India; the revitalization of the rivers Fu and Nan in Chengdu, Sichuan Province, China; and Indonesia's housing policies whereby private developers build a minimum of three middle-class houses and six basic or very basic ones for every high-cost house.

Private sector housing delivery: Many Asian governments have "enabled" the private sector to provide housing for the low-earning segments of the population. However, formal private sector housing tends to favour the rich while disregarding the poor, although Asian cities are hosts to more poor (insolvent) than rich households. This problem is partly caused by the relatively finite and therefore 'inelastic' supply of serviced land, which makes it difficult for real-estate developers to meet demand and causes an overall rise in property prices.

Rental housing: The overall share of rentals in Asian cities is estimated at 30 per cent of the housing market. Although a significant proportion of urban dwellers are tenants, the number of governments giving effective support to rental housing development is small. When privately owned, the bulk of rental housing accommodates low-income households through informal, flexible lease arrangements, which entail

lower rents but weaker security of tenure and probably lower-quality public amenities. Some cities, like Bangkok, have seen innovative rental housing where low-income communities have evolved practical arrangements with landowners to enable them to live within reasonable distance from their place of work.

The 'people's process' of housing and slum improvement: Asia has pioneered the people-led process of housing provision as spearheaded by dedicated civil society groups. These are strong in the region and have gained ground in many cities as a result of efforts by organisations like Slum Dwellers International or the Asian Coalition for Housing Rights, among others, with technical support provided by UN agencies such as UN-HABITAT and the UN Economic and Social Commission for Asia and the Pacific. Civil society has promoted community-led housing development in Cambodia, India, Indonesia, Mongolia, Nepal, Pakistan, the Philippines, Sri Lanka and Thailand. Asia is also testament to the fact that while the private sector is able to meet the housing requirements of the rich, the 'people sector' has been able to cater to the poor (see Chapter 4).

Housing finance for the poor. Housing finance is a key to economic growth as it has linkages to many sectors in the economy – including land, construction and labour markets. Although Asia's mortgage sector remains the least developed in the world, major changes have taken place in recent years. In the formal housing market, for instance, the Republic of Korea, Singapore, China, India, Indonesia, Pakistan, Sri Lanka and Hong Kong, China have done well with housing mortgage finance growth. However, despite these favourable recent developments, growth in formal housing finance largely fails to extend to low-income households. These are effectively left out because informal settlements do not provide any of the comforts or securities typically required by mortgage lenders.

As in other developing regions, the problems in the growth of housing finance for the urban poor in Asia are manifold. Poor urban households in Asia lack the regular incomes that many mortgage lenders demand. Housing finance agencies are also unwilling to seek out clients for small loans because of the operational costs involved. At the same time, it must be recognized that many formal housing finance institutions have sought to "down-market" through mediation by micro-finance agencies or non-governmental organisations. However, the reach of such programmes is limited, again due to high operational costs. These problems have resulted in the development of innovative responses, as follows:

Since cooperative movements and the savings culture are strong in Asia, many self-help and savings groups have been formed among the poor with the help of non-governmental organisations. Micro-finance institutions have also managed to meet the credit needs of the poor, though only to some extent as their reach remains limited in urban areas. Many national governments in Asia have supported community savings schemes and housing cooperatives. Cambodia, India, Indonesia, the Philippines, Sri Lanka and Thailand have all established the institutional and financial frameworks

enabling self-help groups and other organizations to promote pro-poor development.

In Asia, formal market failure to cater to the poor has spawned many innovative alternatives for housing, infrastructure and community development finance for low-income groups. With their combinations of savings loans and subsidies, these innovations have had broad-ranging benefits, including negotiated land tenure security, housing construction and improvements, as well as water and sanitation. As part of the “enabling” role of the public sector, and as advocated by international agencies with regard to housing, many public agencies have shifted operations from housing to finance, as in the case of Singapore. As a result, housing has become a significant part of the microfinance portfolio of many agencies, although borrowings are for house improvements and extension rather than new buildings.

If Asia has to make further progress in the expansion of housing finance for the urban poor, it must overcome the structural weakness in domestic capital markets, distortions in the legal and regulatory frameworks, and poor familiarity with housing finance and mortgage lending.

1.4.4 Access to basic urban services

A key feature of inclusive cities is access to basic urban services. With high urban densities, access to safe and reliable water supply and sanitation services is critical for health, business, social status, dignity and basic security for women and children. Efficient provision of solid waste management, health, energy and transport services is essential for the well-being of rich and poor alike.

Most Asian cities are on their way to achieving the target set under the Millennium Development Goals (MDGs) for access to water. Asian-Pacific subregions seem to have done more for water supply than sub-Saharan Africa, but have fallen behind Latin America and Northern Africa. According to the latest available data, East and North-East Asia has forged ahead, serving 98 per cent of the population. This subregion is closely followed by South Asia with 95 per cent and South-East Asia with 92 per cent. Between 1990 and 2008, access to water supply has improved in most Asian-Pacific cities, but the share of the urban populations with access to safe drinking water has declined by 3 to 12 per cent in Bangladesh, Indonesia, Myanmar and Nepal.

Though most subregions and countries in the Asia-Pacific region are likely to achieve the Millennium Development Goal for water supply, they are left to grapple with the fact that 4 to 8 per cent of the population remain persistently deprived of access in most subregions, except East and North-East Asia. This suggests that even after an overall improvement in service extension, a ‘last mile’ effort is necessary to ensure *universal* access to basic urban services.

Although Asian cities have made considerable progress in providing access to improved sanitation, many are likely to miss the Millennium sanitation target. Between 1990 and 2008, access to improved sanitation has become more widespread in the urban areas of most Asian-Pacific subregions. According

to the latest available (2008) data, 81 per cent of urban populations had access to improved sanitation (defined as improved facilities) in Oceania, followed by 79 per cent in South-East Asia, 61 per cent in East Asia, and 57 per cent in South Asia.

Lack of access to safe sanitation in Asian cities is remedied through increased reliance on shared as opposed to individual household facilities. With the inclusion of ‘shared facilities’, the proportion of urban populations with access to improved sanitation is higher: 91 per cent in East Asia, 89 per cent in South-East Asia, 77 per cent in South Asia, and no change in Oceania (81 per cent). However, the Millennium targets do not formally take in ‘shared facilities’. The Joint Monitoring Programme for Water Supply and Sanitation raises serious concerns over two aspects: effective access throughout the day, and security of users especially at night.

Solid waste management. Due to different consumption and conditioning/packaging patterns, the urban poor in Asia generate less waste (including solid) than their counterparts in higher income countries. Besides consuming fewer non-food items, they tend to collect, re-use, recover and recycle materials, since 20 to 30 per cent of their waste is recyclable. In this way the urban poor already play a significant role in solid waste management. Non-governmental organizations have improved solid waste collection and the attendant job creations with a variety of projects, such as Waste Concern in Dhaka, Bangladesh.

Health. The poor living in informal settlements and slums constitute the single largest group of vulnerable populations in Asian cities today. Compelling evidence links various communicable and non-communicable diseases, injuries and psychosocial disorders to the risk factors inherent to unhealthy living conditions, such as faulty buildings, defective water supplies, substandard sanitation, poor fuel quality and ventilation, lack of waste storage and collection, or improper food preparation and storage, as well as poor/unsafe locations such as near traffic hubs, dumpsites or polluting industrial sites. The health impacts of such unhealthy living conditions are clear: for instance, infant mortality rates in Ahmedabad (India) are twice as high in slums as the national rural average. Slum children under five suffer more and die more often from diarrhoea and acute respiratory infections than those in rural areas. Poor health in turn results in reduced incomes as the urban poor are forced to spend disproportionate amounts on health care.

Energy. An estimated one billion people in Asian-Pacific countries have no access to electricity. Disparities in access to power grids are wide across the region – from 99 per cent of the population in China to 56 per cent in India and 20 per cent in Cambodia. A variety of reasons – irregular land tenure, shared spaces, ill-defined responsibilities for payment, and low consumption – can account for the deficiencies of energy utilities with regard to poor urban communities. These also tend to pay high prices both for relatively poor kerosene-based lighting and for low-quality biomass cooking fuels. To address this issue, some Asian cities have made innovative efforts that could be replicated and up-scaled (see Chapter 4).

Urban Transport. The poor need easy, affordable access to their places of low-paid work or employment. This is because they cannot afford motorised vehicles, and road conditions make walking or bicycling unsafe. Although Asian cities need good public transport, they fare worse than their American and European counterparts. Inadequate planning, where any, has caused a decline in walking and non-motorised vehicles, Asia's two traditional modes. All of this negatively affects the urban poor, who spend significant shares of household incomes on (mini)bus fares, in addition to the waste of time.

1.4.5 Poverty and inequality: Diagnosis and future challenges

The unprecedented pace of economic growth in the Asia-Pacific region has led to rapid urbanization. This has posed serious challenges to local authorities and national governments in the face of ever-increasing demand for secure tenure, proper housing and services in urban areas. There is no doubting that economic growth in Asia and the Pacific has pulled millions out of extreme poverty; still, the numbers of those in moderate poverty remain high. The simple truth is that in Asia rapid urbanization has gone hand in hand with the urbanization of poverty. In this as in other developing regions, urban economic growth has not benefited all residents equally, and the poor are left to bear most of the drawbacks and shortcomings in terms of tenure, shelter, jobs, health, education and the environment. In other words, the distribution of the benefits of urban economic growth in Asia does not match demographic expansion. Therefore, Asia-Pacific countries should develop holistic strategies to address mounting urban poverty, especially as it is a more complex phenomenon compared with its rural equivalent.

Since the year 2000, the lives of 172 million slum dwellers in Asia have been improved through various policies and programmes. However, the region is still host to 505.5 million slum dwellers, over half of the world's slum population, and this is a major challenge for Asian cities. A prevalent view is that governments lack the resources required to provide proper housing to all slum-dwellers, and therefore they should play an enabling role, encouraging the private sector to "down-market" housing production and cater to the poor. However, market-orientated policies have failed to solve the housing problems of the poor. Instead, they have led to a situation where the housing needs of the majority of Asia's urban populations are not catered for either by the market or by government. Public housing is the solution tried out by many governments. This is apposite when public resources and political commitment are adequate. For low-income countries in Asia, the public option, by itself, is inadequate as the resources required for the huge demand are not available. While falling well short of needs, Asian cities have shown their commitment to improved living conditions for the poor. The 2008 economic recession and subsequent contraction in real estate markets offers opportunities for radical policy reform in the urban housing sector. Such policy reforms should be based on the lessons

from those few Asian countries that have managed to make their cities slum-free. Some of these lessons highlight the need for: (i) a leading role for government through proper institutional strengthening at all levels; (ii) empowering the poor through secure tenure; and (iii) developing housing finance mechanisms that cater to the poor, and through which housing savings can be mobilised and subsidies can be targeted.

Further lessons from Asian cities suggest that small-scale programmes are more conducive to participation by the poor in design and implementation, thereby increasing ownership and enhancing sustainability. Greater success is achieved in those Asian cities where the urban poor have deployed their own housing and slum upgrading initiatives. These people-led initiatives are small in scale, but often prove to be the more effective when it comes to improving the living conditions of the poor. The 'people's process' of housing and slum improvement, which has been tested and proven effective in many countries in the region, should be encouraged by all tiers of government through legal recognition, training and financial incentives. National governments and local authorities will do well to develop and implement housing and slum upgrading programmes in partnership with civil society groups.

As regards access to basic urban services, Asian cities have fared fairly well on drinking-water. In some countries access to urban water supply has declined, though. Targeted initiatives are needed in these countries to ensure that safe water is supplied to all urban residents. On sanitation, the performance of Asian cities is poor. A large segment of urban residents depend on shared facilities or simply have no access to any sanitation. The situation is particularly bad for South Asia's urban poor. This subregion is unlikely to meet the Millennium targets for water and sanitation in urban areas unless specific programmes are deployed soon. Governments should assess the state of sanitation in cities, establish national targets to ensure improved sanitation for all, and monitor progress on a regular basis.

Due to low incomes, Asia's urban poor face multiple barriers to health, education and energy, the major one being inability to pay for services. In turn, the ability of the urban poor to participate in income- and employment-generating activities is contingent upon access to basic services, such as education, health, energy and clean living environments. Thus, the urban poor find themselves stuck in a vicious circle of poverty. Some among the urban poor face legal barriers to basic urban services for lack of birth certificates, household registration or residence permits, and most importantly, security of tenure. Since national governments, local authorities, public or private service providers and civil society organizations share responsibility for the delivery of basic urban services to all, they must negotiate and formalize partnerships among them, taking into account their respective responsibilities and interests. Such partnerships should be encouraged and facilitated through appropriate legal and regulatory frameworks, including clear, results-orientated contracts and monitoring mechanisms.

The urban poor play an important role in solid waste management as they routinely sort, recover, re-use and recycle waste. Moreover, informal sector participation in solid waste collection and disposal saves urban authorities significant amounts of money. Therefore, local authorities and private sector enterprises should support the initiatives and efforts deployed by informal sector and community groups to improve solid waste management at the local level.

Asian cities have begun to realise the importance of mass transit and are now making it a policy focus instead of improving vehicle flows. Several cities have deployed bus, skytrain and underground networks to cater to the needs of a larger public, but a good many of those on low incomes cannot even afford public transport. This points out to an urgent need to promote sustainable schemes based on affordable, environmentally-friendly, motorized and non-motorized transport.

1.5 The Urban Environment and Climate Change

1.5.1 Asia's urban development and the environment

“In Asia and the Pacific, overall, there has been a coincidence of rapidly expanding economies, poverty and substantial future consumption pressures, as well as a natural resource base that is more limited than any other in per capita terms. Thus, a focus on meeting human needs and improving well-being with the lowest possible ecological cost is more relevant in Asia and the Pacific than in any other global region,” the UN Economic and Social Commission for Asia and the Pacific recently noted. *In their quest for economic growth, Asian cities have not paid sufficient attention to environmental issues and climate change.* Therefore, to a majority of urban Asians, life is difficult: earning a living is fraught with risks, and the quality of life is poor.

Although the state of the environment in Asian cities inspires widespread pessimism, the situation is not entirely devoid of promising signs. Governments and expanding urban middle classes are increasingly aware that environmental degradation results from an unsustainable approach to urban and economic development. The challenge is to maintain economic development while substantially reducing environmental damage. Making cities more sustainable in the future is one of the greatest challenges facing governments, civil society and the business sector in Asia. Few solutions have been found, but many promising initiatives offer opportunities for replication across the region.

1.5.2 The Defining features of Asia's urban environmental challenges

The following features characterise the urban environmental challenges faced by the Asia-Pacific region:

The dynamics between economic development and urban

environmental issues: The pace of economic development in Asian countries is much faster than in the industrialised world. Challenges related to poverty, environmental pollution and consumption – which are thought to be related to different stages of development and have been faced by the industrialized countries over a longer period of time – are confronting Asian cities within a short time span. This phenomenon is unprecedented and Asian and Pacific cities are only starting now to deal with the complex urban environmental issues associated with it.

The environmental incidence of globalization on Asian cities: Thanks to enormous amounts of foreign direct investment, Asia has become the ‘factory of the world’ with mass relocation of labour-intensive, less technology-dependent and environmentally hazardous industries. In many cases, national governments and urban authorities in Asia have provided very attractive tax and other incentives to secure foreign direct investment projects, with the jobs, exports and the build-up in foreign exchange reserves that come with them. For many Asian countries, this has brought greater economic prosperity and development, though often at a heavy cost to the environment.

Mega-demand for land and natural resources: Industrialization stimulates demographic growth and peri-urban development, leading to massive suburban expansion. On average, Asia's combined urban population grows by over 45 million a year, resulting every day in the conversion of more than 10 sq km of (mainly productive) agricultural land to urban uses. More than 20,000 new housing units are needed every day to meet basic needs for shelter, creating a huge demand for construction materials and an additional six million (‘mega’) litres of potable water. Much of this water draws down on existing aquifers, many of which are becoming depleted or contaminated.

The ecological footprints of Asian cities: In most Asian cities today, the average ecological footprint is in excess of five hectares per head, indicating that current consumption patterns are unsustainable. The ‘ecological footprint’ is an average measure of the amount of land required to sustain one individual. Planet Earth can offer a nominal 1.7 global hectares per head (‘ghph’) of habitable land to support the needs of the human race. Although the footprints of Asian cities tend to be smaller than those in developed countries, they are on an upward trend, a phenomenon that is not without consequences for the global environment.

High vulnerability to climate-change factors: The unique geography (highest mountain systems, extensive coastlines and large river floodplains and deltas) and climate (monsoon, tropical cyclones and typhoons) combine with high population densities and lack of planning to make Asian-Pacific cities highly vulnerable to the effects of climate change on top of natural disasters. From this perspective, urban centres in the Pacific islands are even more at risk than those in Asia.

The growth of Asian cities is not environmentally sustainable. Infrastructure development and growth patterns may lock Asian cities into unsustainable consumption and production models for years to come.



▲ Malé, Maldives. ©Mohamed Shareef/Shutterstock

1.5.3 Environmental conditions in Asian cities

Air quality. Air pollution in Asian cities originates mainly from two sources: (i) stationary sources, which include power plants, industrial activities, and residential and commercial buildings; and (ii) mobile sources, mainly motor vehicles, which in turn can be attributed to poor maintenance, poor fuel quality and inadequate traffic management.

Air pollution in Asia causes as many as 519,000 premature deaths every year. Urban dwellers are exposed to micro-particle (particles of 10 micrometres or less – ‘PM10’) inhalation as well as to sulphur and nitrous dioxide emissions.

Information on air quality is of variable quality, and altogether missing for many Asian cities. No survey can be found that provides a comprehensive picture of the current status of, and changes in, urban air quality across Asia. At best, research provides measures of change in air quality in specific cities: some show improvements in Bangkok, Colombo, Dhaka, Ho Chi Minh City and Pune; others find that air quality is declining in Jakarta, Phnom Penh and Ulaanbaatar due to increasing rates of vehicle ownership, high manufacturing concentrations in inner city areas, poor vehicle maintenance and (in Ulaanbaatar) use of low-quality coal and wood in cooking/heating stoves.

Some Asian cities have managed to improve air quality. Delhi and Dhaka, for instance, have phased out two-stroke engines and introduced cleaner fuels and other emission reduction measures in order to improve air quality. In Ho Chi Minh City, Jakarta and Pune, efforts involve improvements in traffic management, public transport and policing.

Water management. Asia is host to some of the world’s most arid and most water-rich biomes, where water management is an increasingly important issue. Apart from drought and flooding, threats to water resources result from many factors, including inadequate fresh water and sanitation infrastructures, river pollution and groundwater overuse.

Water supply. Since 1990, Asia has made significant progress with regard to access to safe drinking water (as noted earlier). At the same time, water resource management cannot be overlooked. According to UNESCO, a country can be considered to be ‘water-scarce’ if total withdrawals are greater than 40 per cent of annual water resources. An Asian Development Bank survey of 18 Asian cities showed that most were drawing down more than 60 per cent of annual replenishment volumes earlier in this decade, and in Chengdu and Shanghai (China) the rate was greater than 80 per cent. Another challenge for many urban authorities in Asia is the maintenance and/or replacement of the older segments of water-supply systems, many of which are plagued by serious amounts of leakage. In Kathmandu, for example, the distribution system loses 35-40 per cent of clean water through leakage; in Karachi the proportion is 30 per cent and in Chennai, 25 to 30 per cent. Moreover, the poor end up paying more for water supplies than their richer neighbours in Asian cities, as in the case of Ulaanbaatar.

Sanitation and wastewater. Along with access to improved sanitation, wastewater treatment is a major issue in water management in the Asia-Pacific region. This is because only a few Asian cities have the capacity or resources to deploy

large-scale wastewater treatment facilities. Dense housing development and narrow roads combine with land ownership and compensation issues to act as major constraints on any deployment of large-scale treatment systems in Asian cities. Consequently, communal septic tanks, small-bore sewerage and local treatment facilities, together with wastewater treatment plants on industrial estates, appear as the most viable and cost-effective alternative ways of improving urban sanitation and reducing industrial water pollution in Asia's newly developed urban and peri-urban areas.

Solid waste management. Many Asian cities face serious problems with regard to solid waste management despite significant government efforts to improve services and facilities. In the developing countries of the Asia-Pacific region, solid waste management is often inadequate, as is sanitary and industrial waste disposal due to technical and financial constraints. All countries in the region have environmental legislation and policies in place to manage solid waste collection and disposal, but in the lesser-developed countries enforcement is often poor, or local communities are unaware or dismissive of the regulations. In many cities, polluters go unpunished.

Waste collection services are very deficient in many Asian cities, but are improving. In China, 60 per cent of urban solid waste is collected, compared with 70 per cent in the Philippines. However, open dumping is the dominant solid waste disposal method in most Asian cities. This is the case with more than 60 per cent of the waste in Bangkok, for instance. Inadequate collection and disposal of solid waste in urban Asia is a source of health hazards, environmental degradation and green house gas emissions.

Solid waste can be used as a resource, as demonstrated in several Asian cities. As a response to this problem, several local governments, civil society groups and local communities have deployed schemes that have improved solid waste management in many Asian cities. Some, like the Integrated Resource Recovery Centre (IRRC) approach developed by ESCAP and Waste Concern, are leading to a paradigm shift by proving that solid waste management, when linked to carbon financing, is a highly profitable business.

Poor urban environment and health. Large numbers of people are in poor health in Asian cities, due mainly to malnutrition, poverty, cramped living conditions, polluted air and contaminated water. Many lack access to adequate medical facilities and other health services. The emergence of viral diseases such as severe acute respiratory syndrome (SARS) and avian flu in the past decade posed serious threats to Asia's urban populations and economies. The risk of a major pandemic in Asia remains very high: the frequent combination of high population densities and unsanitary conditions is particularly conducive to the breeding, mutation and spread of disease. *Since cities are by now well-connected to the rest of the world, they are potentially exposed to communicable diseases originating in other parts of the world.*

Urban biospheres. The changes caused by rapid urban expansion in Asia pose a number of serious threats to urban biospheres, including: (i) loss of vegetation (flora), and hence

(ii) loss of biodiversity (both flora and fauna); (iii) changes in micro-climates; (iv) loss of fertile arable land (a major issue in China and India in connection with future food security); (v) soil degradation, and related (vi) groundwater pollution (on which many low-income urban dwellers depend for water supplies).

Efforts by agencies like UNESCO are under way for the creation or maintenance of urban biosphere reserves. In Asia, one of the best examples of urban biosphere restoration is the Can Gio mangrove forest east of Ho Chi Minh City, an area that was almost destroyed by defoliant spray and clearing during the unification war. High degrees of biodiversity have been restored to the mangrove forest, which today is host to more than 200 species of fauna and another 52 of native flora.

1.5.4 The challenge of climate change

The Asia-Pacific region stands to be most affected by climate change. Its exposure and sensitivity to climate change are bound to have significantly adverse physical, economic and social consequences. Cities in Asia are the most exposed to the effects of climate change: due to size, geographic location or elevation, they are especially vulnerable to frequent extreme weather events such as droughts, floods, cyclones and heat waves.

Estimates vary as to the total contribution of the world's cities to greenhouse gas emissions. However, it is clear that the energy demands of urban areas – including Asia's rapidly growing cities – are major contributors to greenhouse gases. The contribution of fossil fuel use in urban areas to worldwide greenhouse emissions could be as low as 40 per cent or as high as 78 per cent, depending on how the estimates are made. Specific estimates for the Asia-Pacific region have yet to be calculated.

The causes of climate change and the challenge of mitigation

Climate change will affect energy use and costs, transportation systems and building designs.

Energy, economic growth and the environment. The consumption of energy has grown along with, and has fuelled, economic growth in Asia and the Pacific, especially over the past two decades. Moreover, despite volatile oil prices, total consumption of primary energy continues to increase in most Asian-Pacific countries. In 2006, over 80 per cent of the region's total primary energy supply was made of fossil fuels, including coal, with the remainder split between nuclear power, hydropower and traditional fuels (biomass) such as wood and animal dung. Less than 0.25 per cent came from geothermal or other new and renewable energy sources. As one might expect, fossil and traditional fuels dominated where access to electricity was poor. Since 1990, the region's total energy consumption has increased significantly on the back of substantial increases in electric generation capacity in order to support rapid economic development.

The immediate fallout of the rapid urbanisation and economic growth in Asia is increased energy demand for transportation.

This particular sector contributes an estimated one-third of greenhouse gas emissions worldwide. Although technological change and the implementation of tighter emission norms have produced a decline in greenhouse gas emissions per car, these have kept growing overall on the back of increasing urban car numbers across the region. According to the International Energy Agency, the number of motor vehicles in Asia will increase by more than four times in the next 20 years. Asia's share of global energy consumption is expected to increase nearly threefold from the current 6.5 per cent to 19 per cent by 2030.

Buildings and climate change. According to the International Energy Agency, buildings account for as much as 40 per cent of total end-use of energy and about 24 per cent of greenhouse gas emissions in the world. In countries like China, Japan and the Republic of Korea, buildings – especially high-rise – tend to be made of materials with high embodied energy (i.e., the materials were energy-intensive to manufacture). On top of this, building design has little regard for the local environment.

Mitigation responses in urban Asia. Asian countries can already begin mitigating the longer-term impacts of climate change in a variety of ways. This is of particular importance to the larger polluting countries like China, India, Japan and the Republic of Korea. These and other countries are beginning to reduce greenhouse gas emissions by switching to cleaner fuels and alternative sources as far as electric power generation is concerned; they have also taken to reduce industrial, domestic and public transport demand for fossil fuels, but the pace of change is not fast enough.

In the transportation sector, the conversion of private (cars, motorized tricycles) and public vehicles (public transport) to natural gas in several Asian cities has brought significant reductions in greenhouse gas emissions. Delhi, for instance, has converted public transport and para-transit vehicles from diesel or petrol engines to compressed natural gas and introduced low-sulphur fuel, which demonstrated that major change could occur on a large scale, as long as appropriate policies were deployed.

With regard to buildings, according to the International Energy Agency, energy-efficiency standards in buildings across the world would reduce energy use by about 11 per cent by 2030 compared with a business-as-usual scenario. In China, the city of Rizhao has demonstrated that overall energy demand and greenhouse gas emissions can be reduced through sustainable building design and energy use.

The effects of climate change and the challenge of adaptation

The effects of climate change on cities. The impacts of climate change on Asian and Pacific cities will be significant. They will affect not only the human, but also the physical, economic and social environments.

Increases in natural disasters. Asian cities are among the most vulnerable in the world to natural disasters, with many informal settlements located in fragile environmental areas on shorelines

and major river basins. Climate change will increase the risk of storm and flood damage in many cities in the region. Some authors have found that Bangkok, Dhaka, Guangzhou, Hai Phong, Ho Chi Minh City, Jakarta, Kolkata, Mumbai, Shanghai and Yangon – all located under the tropics – are the world's most exposed cities to increased flooding due to climate change. Many Asian cities lie on coastal plains, which are bound to suffer more frequent flooding from tidal surges and storm damage. Exposure to extreme weather events – heat waves, tropical cyclones, prolonged dry spells, intense rainfall, tornadoes, thunderstorms, landslides or avalanches – is already high in the Asia-Pacific region. In the 20th century, Asia accounted for 91 per cent of all deaths and 49 per cent of all damage due to natural disasters.

Rising sea levels. Climate change will have a significant impact on the future development of Asia's coastal cities. An estimated 18 per cent of Asia's urban population lives in low-lying coastal zones. Particularly vulnerable are deltas and low coastal plains where many large cities are located, such as in Bangladesh. Island-states, such as Maldives and Tuvalu, are particularly exposed. In 2000, according to some authors, more than 238 million people lived in cities located in Asia's Low Elevation Coastal Zone (i.e., less than 10 metres above sea level) which, as a result of climate change, were potentially exposed to rising sea levels and storm surges. In 2010, this number rose to an estimated 304 million. Six of the 10 major port cities most at risk (in terms of exposed population) of flooding and inundation are in Asia. Adapting to climate change is a challenge for poorer Asian countries such as Bangladesh, as well as the smaller Pacific and Indian Ocean island states, owing to very limited resources and options.

Due to the effects of climate change, urban and rural areas will face the challenges of water supplies, food security and 'eco-refugees'. Climate change will result in significant alterations in weather and rainfall patterns, which will cause profound but highly variable direct and indirect effects on cities. Many of the effects expected in rural areas will also be felt by cities and towns. Loss of agricultural land due to inundation and other climate-related events (such as drought) will affect food security in villages and cities alike. The implications for food security will be significant as desertification makes further progress in countries such as China and India. Water supply for rural and urban areas will be affected by changes in rainfall patterns.

In urban areas, the poor are most vulnerable to climate change. For lack of proper land plots or housing, the urban poor live in environmentally vulnerable sites such as low-lying areas, along the banks of rivers or lakes, steep slopes or in the proximity of waste dump-sites. These areas are likely to become more vulnerable due to the effects of climate change such as increased rainfall and inundation, stronger cyclones, typhoons and storms or sea level rise. Moreover, the poor are more likely to be affected due to water and food shortages, as well as health epidemics.

The challenge of 'eco-refugees'. Many people living in thousands of cities and towns across the Asia-Pacific region

face increasing uncertainty about their future, with millions potentially exposed to upheaval and relocation as ‘eco-refugees’ (known as ‘climate change refugees’). The relocation of eco-refugees will pose a significant challenge, requiring new urban settlements that will further reduce the amounts of land available for food production.

Financing climate change policies. Although difficult to predict, the economic costs of unmitigated climate change in Asia are likely to be very high. In Asia as elsewhere in the world, a major question when addressing the issue of climate change is, who will bear the costs?

Adaptation will be expensive and will require significant national and international borrowing and the raising of revenue through a variety of user-pay means. Most costs will have to be borne by urban dwellers, since cities contribute most to greenhouse gas emissions. Reducing these will call for a variety of strategies. Some – such as the introduction of cleaner fuels and engine conversions for public transport, which is already occurring in many South Asian cities – will become widespread across the region. Because of the diversity in climatic, geographic and economic conditions, however, individual cities will also need specific strategies to suit their own circumstances.

As far as the financial dimension of climate change adaptation/mitigation is concerned, some Asian countries have adopted, or are considering schemes involving emissions trading, carbon taxes and the Clean Development Mechanism (CDM), a legacy of the Kyoto Protocol that seeks to transfer funds and technologies from developed to developing countries in return for greenhouse gas reductions. Asian countries currently account for more than 75 per cent of the total Certified Emission Reduction credits (CERs) issued by the UN Framework Convention on Climate Change (UNFCCC) through the Clean Development Mechanism, with China and India among the more extensive issuers, accounting for more than 70 per cent together with the Republic of Korea.

1.5.5 Urban Asia and the environment: Diagnosis and policies

So far, faced with poverty and unemployment, Asian governments have given high priority to economic growth and development through industrialisation. Many have accepted that environmental issues are associated with this approach, but consider that these can be addressed once the nation reaches a certain level of development, by which time it is believed that more public funds can be allocated to environmental management and improvements. The prognosis for many Asian cities is that environmental conditions are to worsen for some time to come. However, improvements can be expected once better urban environmental planning and management practices are adopted and the economic benefits of growth become more widespread.

Efforts will also need to be made for better environmental management in Asian cities. More specifically, cities will have to improve air quality management in order to reduce

premature deaths caused by air pollution. Similarly, Asian cities will have to make greater efforts to improve water and wastewater management if they are to avoid further contamination of supplies and meet increasing demand. Enhanced public awareness of water conservation is also essential if the costs of treatment and the incidence of water-borne diseases are to be reduced. Likewise, Asian cities will have to make concerted efforts to improve solid waste and wastewater management, including the technical, institutional and financial aspects.

Better environmental governance and compliance, including enforcement of rules and regulations, will be essential to conserve natural resources and to prevent the negative environmental impacts of air and water pollution as well as soil degradation. Moreover, environmental improvements in Asian-Pacific cities will require greatly increased regional cooperation, collaboration and commitments. This is because environmental issues, including climate change, are complex and varied in nature and scope, and involve multiple scales from local to global. This calls for close coordination of environmental policies, standards and practices to a degree that is unprecedented in the region.

As in other developed and developing regions, Asian-Pacific cities have the potential to influence both the causes and consequences of climate change. They can also contribute to national and international strategies to prevent unacceptable climate change impacts. Therefore, Asian-Pacific cities should provide leadership and direction, and implement practical initiatives for the benefit of their and national populations.

With regard to the effects of climate change and the challenge of adaptation, a particularly difficult issue will be dealing with refugees inside and across borders. This will be a very significant problem in Bangladesh, China, India and the Pacific island-states. At the same time, governments must also address poverty and the issues of food and water security, and create sustainable economic development opportunities. Most Asian-Pacific cities and governments face a difficult balancing act in this regard.

For Asian-Pacific cities to become sustainable and liveable, they will have to renovate their age-old, inefficient physical and economic infrastructure. This is likely to be an incremental process, although rapid change will be necessary in some cases to address more serious environmental problems. The sheer number and sizes of Asian-Pacific cities and the resources needed to service them pose great challenges to governments and urban planners and managers committed to sustainable urban development. Few cities in Asia have the massive resources required to reinvent themselves. They lack the capacity to inject the vast amounts of capital that could radically transform development, production and consumption practices.

However, the business-as-usual approach to development and environmental management is no longer an option. The way Asian-Pacific countries handle urban development and management in the future must change if further environmental deterioration is to be avoided. In order to remain competitive, viable, healthy and liveable places,

Asian-Pacific cities must embark upon more sustainable development pathways. Working towards ‘green growth’, Asian-Pacific economies should make efforts to improve their eco-efficiency, reducing the pressure on the natural resource base while continuing to meet ever-increasing human needs.

Undoubtedly, Asian-Pacific cities face massive problems of congestion, pollution, inadequate infrastructure, weak governance and poverty. But they are also very dynamic and vibrant places that have demonstrated remarkable resilience and the capacity to recover from past catastrophes (for instance, in the aftermath of the 1997-98 Asian financial crisis). Some of the efforts of Asian-Pacific cities to improve their environmental conditions have led to the emergence of good practices, which can be adapted and/or replicated in other parts of the region.

Nevertheless, given the unprecedented scale and pace of urbanization, it is clear that fresh approaches must shape the way Asian-Pacific cities are planned, managed and governed. This must include enhanced institutional and technical capacities for urban environmental planning and management. Urgent action is required from all tiers of government to address pressing matters related to climate change – both mitigation and adaptation, and with a special focus on water and energy security, wastewater and solid waste management. These requirements are such that cooperation among countries, public authorities, business, civil society organizations and local communities will be required on a scale never seen before in the region. Admittedly, differences in language, politics, culture, history and the extent of economic development will stand in the way of such cooperation, but they must be overcome if Asian-Pacific cities are to become more sustainable and liveable.

1.6 Urban Governance, Management and Finance in Asia

Urban governance, management and finance had been on the policy agenda in Asia for over two decades when, with the worldwide economic crisis that began in 2008, these issues took on a more visible and acute dimension. In recent years, many Asian cities have sought to improve governance in a bid to achieve sustained economic and social development in the face of serious problems such as slum and squatter settlements, traffic gridlock, inadequate water supply, poor sanitation, unreliable energy systems and serious environmental pollution. The gated communities of the rich and the ghettoized enclaves of the poor come as dramatic illustrations of an ‘urban divide’ often characterized as ‘a tale of two cities.’ Inner cities deteriorate as development moves to outlying areas and results in automobile-induced urban sprawl. Pervasive graft and corruption mar the implementation of many projects. All these problems dent the capacity of urban areas to act as development hubs and highlight a vital need for improved governance.

1.6.1 Urban governance and operational structures

Urban authorities in Asia have traditionally relied on operational structures and processes such as city and regional plans, zoning codes, regulations and standards, financing schemes, proper personnel management and the use of performance evaluation and audit methods for the sake of cost-effectiveness and accountability. However, *experience has shown that, on their own, the technocratic approaches traditionally used by urban authorities in Asia have had limited effectiveness* for two main reasons: (i) the informal sector makes a significant contribution to local economies, and (ii) urban authorities are chronically short of capital and operating funds. In recent years, urban authorities have greatly benefited from the participation of citizens, business, community and other civil society groups that have become actively involved in the governance process. *Accordingly, the past two decades have seen a broadening of the scope of governance in Asia with a shift away from the ‘business’ of government to the ‘process’ of governance which involves various stakeholders.*

Recent constitutional and statutory changes in a number of Asian countries reflect the recognition of the vital role of civil society participation in urban governance, as non-governmental and grassroots organisations demand greater involvement in local affairs. For instance, the 73rd and 74th amendments to the Constitution of India have specified the roles to be played in governance by grassroots or community-based organizations, women’s groups, the urban poor and various emanations of civil society. In Pakistan, the law reorganizing urban authorities grants a formal role to non-elected members of the public: ‘Citizen Community Boards’ are empowered to spend one fourth of budgets on community needs. In Thailand, the Constitution Act of 1997 prescribes the establishment of local personnel committees with representatives not only from government agencies, but also “qualified persons” from local populations.

Basic stakeholders in urban governance. Eight types of governance stakeholders are considered crucial to economic, social and environmental sustainability in urban areas; local authorities, civic institutions, interest groups (including the business sector and labour/trade unions), the academic community, national government, non-governmental organizations, individual citizens and local communities. These stakeholders contribute to urban governance in the following ways: (i) Individual citizens, interest groups and communities, together with civic institutions, the academic community and non-governmental organisations, provide for the accurate identification of peoples’ needs and requirements through interest aggregation and expression, a process that can guide public authorities when devising policies and programmes, facilitate monitoring and evaluation as well as promote transparency and accountability. Civil society can act as a two-way channel, including for feedback about the nature and performance of public policies and the need for any changes. (ii) Local and central governments are guided by grassroots participation in the formulation, implementation

and evaluation of those policies and programmes designed to achieve common societal goals. (iii) Good urban governance enhances direct or indirect involvement of communities and various sectors of society in government affairs, which contributes to democratic decision-making. (iv) Active involvement of individuals, communities, interest groups, civic institutions and non-government organisations in urban governance facilitates the collection and allocation of resources in a fair, equitable and inclusive manner. (v) Good urban governance comes hand in hand with agreed, appropriate ethical standards of behaviour and performance for holders of public office.

1.6.2 The principles of urban governance

In most Asian-Pacific cities, the population can participate in the performance of public functions such as elections, the budgetary process and reviews of public actions. Experience also shows that the process of urban governance requires more than formal adherence to government procedures. The emphasis on governance as a 'process' calls for active involvement from various stakeholders, including business and the public. The following four principles of urban governance are increasingly put to good use in Asian and Pacific cities:

Participation and representation. In most Asian-Pacific cities, urban populations participate in ballots to elect local representatives, i.e., councillors and mayors. While local elections generally secure fair degrees of public participation, the fact that the lowest tiers of municipal authority generally lack resources to pursue public programmes acts as a major hindrance. With ever more complex urban conditions and pervasive globalization, grassroots and special-interest groups as well as non-governmental organizations have demanded greater participation in local affairs. Beside local elections, the most direct form of participation includes referendums, petitions and attendance at committee meetings. In China, for instance, direct participation has taken the form of community consultation and dialogue with local officials. In the Republic of Korea, urban communities have come up with frequent demands for audits of, and investigations in, government programmes. In Thailand, the government has set up a "court of governance" which citizens can turn to in order to resolve conflicts with public authorities. Participatory policymaking has been introduced in a number of Asian-Pacific cities, for instance in India and Pakistan, as mentioned above. Some Asian-Pacific governments have deployed 'accommodating' policies that include marginalized groups in governance; for example, most low-cost housing programmes for the urban poor in Asian cities now include clear provisions for self-help, mutual aid and co-financing, as well as tapping the capacities of the urban poor themselves in a bid to augment limited government resources through so-called 'enabling' strategies.

Participatory budgeting. Participatory budgeting leads to improvements in infrastructure, services and accountability, but various elements in Asian urban governance are standing in the way. Participatory budgeting, whereby ordinary residents

decide local resource allocations among competing items, has been quite late in coming to the Asia-Pacific region but it is gaining in popularity. In Pune, India, municipal authorities enabled participatory budgeting to involve residents at the ward level. Pilot projects on participatory budgeting implemented by the Asian Development Bank in Indonesia and Pakistan showed that: (i) municipal technical staff tended to dominate the budgetary process; (ii) community leaders and local politicians tended to be the main participants; (iii) as a result, projects tended to benefit mainly to specific groups, and (iv) the interests of the poor and marginalized groups were upheld only when vocal civil society and other non-governmental organizations championed their own causes. These lessons are useful for the promotion of participatory budgeting in Asian cities.

The mechanisms for accountability and transparency. Two of the most serious governance problems in Asian cities are how to enhance the transparency of public decision-making and how government officials can be made more accountable for their actions. Although legislation formally enhances transparency and accountability, corruption remains a serious issue in many Asian countries. The following measures and practices have put Asian urban authorities in a better position to tackle corruption: (i) turning corruption (specifically with regard to bribery, embezzlement, theft, fraud, extortion or abuse of authority) into a criminal offence, as in Hong Kong, China, and Singapore; (ii) adoption of a Code of Ethics to guide daily routines, as in the case of 'City Managers' Association Gujarat'; (iii) a strong and vocal press has not only enhanced transparency but also restrained corruption; and (iv) civil society activism has also forced local authorities to become more transparent and accountable.

New technologies and e-governance. Recent advances in information and communication technologies (ICTs) in Asia have had significant effects on urban governance. Many local authorities have by now introduced computers and the Internet in governance systems. Application of new technologies to governance ranges from improved transport management to accounting systems, payment of municipal charges, property assessment, tax collection, police operations, on-line response to public enquiries, grievances or complaints, electronic libraries, as well as information collection and dissemination campaigns (as in India and Malaysia). The new technologies have also enhanced efficiency with a shift away from manual paperwork, enabling a significant degree of services consolidation, for instance, the One-Stop Processing Centre for foreign companies looking to invest in projects in Suzhou, China. At the moment, three issues stand in the way of more widespread application of information and communication technologies to e-governance: (i) *equity*, as there is a wide gap among citizens (and geographical areas) in terms of access to electronic communication (the 'digital divide'); (ii) *interoperability* among the vast variety of information and communications systems available in the region; and (iii) *security* as applied to dealings with public authorities (related to the problems of computer hacking, identity theft, etc.).

1.6.3 Types of urban governance systems

Asian-Pacific urban governance systems involve autonomous municipal corporations, metropolitan bodies and central government. Also involved are smaller local government units like districts, regencies, prefectures, cantonments and neighbourhood councils, but these are usually in a state of functional or other subordination under constitutional provisions or legislation. Municipal authorities are typically governed by charters that specify their objectives, territorial scope, structure and functionalities. Metropolitan entities can be set up by municipal bodies in a bid to create region-wide federations, or alternatively they can be imposed by higher tiers of government. Central government is usually in charge of the areas where national capital cities are located (e.g., the Kuala Lumpur federal territory in Malaysia and the Bangkok Municipal Authority in Thailand).

The governance of towns and smaller cities. In almost all towns and smaller cities in the Asia-Pacific region, governance structures include a policymaking body such as a town or city council and an executive arm like a mayor. For all the efforts at decentralization and local autonomy, most municipal officials are, in fact, vested with only limited authority and power, and any effectiveness they may have is a function of linkages with national legislative or executive bodies, including government departments. *Many smaller urban settlements are finding it difficult to achieve development goals due to inadequate financial, human, institutional and legal resources or frameworks, as well as poor political leadership, but national governments tend to ignore their predicament.*

City cluster development. City cluster development promotes the potential of cities and towns within a single urban region through strategic links with a combination of urban infrastructure and services as well as innovative financing schemes. Drawing the lessons of cluster-based economic and industrial development as a way of enhancing the competitiveness of certain areas where resources are concentrated, the Asian Development Bank has adopted the approach as an integral part of a long-term strategy designed to reduce poverty through “inclusive development and growth-promoting activities.” Well-formulated and well-executed city cluster development schemes can bring a number of benefits, including the following: (i) Deployment of integrated urban infrastructure and services over whole city-regions, rather than confined to individual towns and cities. (ii) Availability of financial and other resources to develop urban clusters, with common taxation standards and operations, improved credit ratings and more equitable tax burdens among cities and towns in any given cluster. (iii) Better opportunities for attracting private sector participation in area-wide development projects, especially those focused on urban infrastructure and services. (iv) Improved capacity to deal with urban problems like environmental pollution, health, flooding and others that ignore political boundaries. (v) Inclusive development that integrates both urban and rural areas in a region. The methodology can give rise to planned development of clusters of towns and small cities

or urban authorities located close to a large city within a metropolitan region. The development of the Bangkok-centred region shows how the cluster process can help plan mega-city expansion.

Clustered development and smaller city-regions. Smaller city-regions generally lack urban infrastructure and services. Because urbanized nodes are typically separated from each other by rural areas, building and managing integrated infrastructure and services is expensive. In these conditions, the clustered development approach can enhance integrated development of urban and rural areas through well-planned, comprehensive provision of urban infrastructure and services. The method can also be used to strengthen economic links among urban clusters. China, India and Japan have used the city cluster approach for the planning and development of urban nodes and their rural hinterlands.

The governance of metropolitan and mega urban regions. In recent years, most Asian governments have been focused on mega-cities and mega urban regions. These sprawling city-regions are usually governed by a plurality of bodies, and on top of this also suffer from administrative fragmentation among central and provincial/state departments and agencies. Lack of cooperation or coordination among urban authorities and central and provincial/state bodies poses major challenges to metropolitan planning and governance. In general, Asian governments currently resort to three types of approaches for the governance of metropolitan areas and city-regions:

- (i) *Autonomous urban authorities*, where cities, towns and municipalities within a city-region are distinct from each other both functionally and territorially. Every local authority is in charge of its own planning, policymaking, regulations and programme/project execution.
- (ii) *Mixed systems of regional governance*, where authority and power are vested in formal structures such as central government departments, regional authorities, metropolitan bodies, special-purpose authorities, cities, towns and villages. Each of these government bodies is responsible for functions such as policy-setting, financing, planning and implementation of programmes and projects. Specific functions can be carried out by separate agencies operating at different levels. These functions can also be shared by a number of government bodies.
- (iii) *Unified metropolitan government*, where city-regions come under a single governing body which plans, manages, finances, supports and maintains services in an area-wide territory. Any local authorities within the city-region are subordinated to the unified government. This approach has been used mainly in national capitals where the central government’s authority is dominant (e.g., Seoul).

Historical and cultural factors have influenced the evolution of each type of governance system. Each type also comes with specific benefits and shortcomings.

1.6.4 Mega urban region development

The emergence of mega urban regions in Asia has posed serious challenges to both urban planning and governance. According to UN-HABITAT, “Mega-regions, urban corridors and city-regions reflect the emerging links between city growth and new patterns of economic activity. These regional systems are creating a new urban hierarchy and the scope, range and complexity of issues involved require innovative coordination mechanisms for urban management and governance”. Traditional approaches to planning in the region have focused on the physical dimension, i.e., building and maintaining infrastructure and services. However, this focus on ‘hardware’ is sorely inadequate when it comes to managing the growth of mega urban regions whose development is closely linked to the economic and social forces of globalization. Governing frameworks in mega urban regions are extremely fragmented: vertical division among various tiers of government (national, regional, metropolitan, city, district and neighbourhood) mixes with the functional fragmentation of government departments (public works, transportation and communications, environmental control) and territorial fragmentation (metropolitan area, chartered cities, municipalities, villages). An important challenge posed by mega urban regions is the need to manage and govern the multiple political jurisdictions at work in expanded built-up areas.

1.6.5 Decentralization and government functions

In their decentralising drive, Asian governments have resorted to three types of policies: *deconcentration*, *administrative delegation* and *political devolution* of authority and power.

- *Deconcentration* shifts administrative responsibilities for urban affairs from central government ministries and departments to regional and local bodies, establishing field offices and transferring some decision-making to field staff.
- *Delegation* involves shifting management authority from the central government to local authorities, semi-autonomous or parastatal bodies, state enterprises, regional planning or area development agencies, as well as multi- or single-purpose public authorities.
- *Devolution* is a form of decentralization that involves the transfer of authority and power from central to local government units with the aim of enabling the latter to provide services and infrastructure, raise local revenue, and to formulate, adopt and carry out policies and programmes. Recent decentralization in India and the Philippines is a good example.

1.6.6 Financing urban development

Urban authorities in Asia would need to spend close to US \$10 trillion over 10 years if they were to meet all their requirements in terms of infrastructures and institutional frameworks.

In almost all Asian cities, the lack of financial, human and

technological resources poses a serious challenge to good governance. It has been said that many Asian countries have “rich cities, but [economically] poor city governments.” One possible reason for this is that most urban authorities in the region are not using to the full their powers to raise revenue from local sources. As a result, they are heavily dependent on tax revenue allocations, grants-in-aid and other forms of financial assistance from central and provincial/state government. Furthermore, the power of urban authorities to borrow from domestic and foreign sources to finance infrastructure and other capital-intensive projects is often legally constrained by central government. Institutional and private sector investors as well as foreign venture capitalists are often reluctant to extend credit for local urban projects without national government (‘sovereign’) guarantees. The following outlines the various sources of finance for urban development in Asian and Pacific region, and the related issues:

Intergovernmental transfers. Although recent decentralization drives have given urban governments more authority and power to raise revenue and decide on expenditures (such as in Thailand), they have traditionally been heavily dependent on central government fund transfers. When determining the allocation of authority between central and urban or local authorities, governments face two problems: *vertical imbalance*, where the bulk of resources go to central government, creating a serious “fiscal gap” at the local level; and *horizontal imbalance*, where inequality occurs across various local government units with different developmental resources and capacities.

Local revenue sources. In Asia, local authorities have the power to collect revenue within their jurisdictions. However, the tax base is rather limited for those revenues which local authorities can keep. In fact, the bulk of local revenues are collected by central governments under the form of personal or corporate income taxes, import duties, value-added (VAT) and excise taxes, user charges and income from government enterprises.

Property-based taxes. These are considered to be the most appropriate sources of local revenue, and one that is typically used to fund urban development and services. Still, evidence shows that in Asia, property tax proceeds account for less than 20 per cent of local authority revenues. As some of those authorities have found, streamlining collection and property assessment systems (such as the unit-area method in India), combined with information technology (and geographic information systems (GIS) in particular), has dramatically improved property tax collection.

Domestic and foreign borrowings. With their fairly large capital amounts, long durations and revenue-generating capacity, large urban infrastructure projects lend themselves well to domestic or foreign borrowings (including syndicated bank loans and bond issues). China and India have issued bonds to finance urban infrastructure. In most Asian countries, though, the problem with domestic or foreign market borrowings has to do with lack of access: either because it is formally restricted (especially in the case of

foreign borrowings), or because local banking or financial markets are not large enough, or because borrowers are not considered suitable for one reason or another. This is where regional development banks and their financial expertise can play a significant intermediary role. The Asian Development Bank, for one, has started issuing local currency loans that enable cities and other local authorities or bodies to avoid foreign exchange risk on interest and principal payments, making project costs more predictable.

The private sector and urban infrastructure finance. Private sector participation (PSP) is playing an increasingly significant role in urban Asia as a source of both revenue and management expertise. The benefits of private sector participation include access to capital in order to finance significant infrastructure projects, together with the ability to use the advanced technologies offered by modern firms and to secure funding from regional or global financial institutions that are familiar with the PSP format. China has taken advantage of these features in a large number of projects, so much so that by 2005, it was estimated that more than 40 per cent of the country's total output, 60 per cent of economic growth and 75 per cent of new employment were contributed by the private sector.

Privatization of urban infrastructure and services. In many Asian cities, the private sector currently carries out the financing, operation and management of urban infrastructures such as transport, electricity, gas supply, telecommunications, and solid waste collection and disposal. All government does is to set policies and procedures for private companies to go by. The main argument in favour of privatization is that private companies tend to be more efficient than public bodies when it comes to managing business-like operations like public utilities. The crucial issue facing urban authorities in Asia is how to determine the benefits and drawbacks of privatization schemes. Important questions raised by privatization include: (i) Are such schemes really more efficient and cost-effective than publicly-run utilities? (ii) Do such schemes actually tap into private sector capital and expertise, within the overall context of the relationship between government agencies and service providers? (iii) How does privatization affect the lives of the urban poor? (iv) Are privatization schemes conducive to political interference, anomalies, graft or corruption?

Land as a resource for development. In Asian cities, urban land is a frequently neglected resource. Tapping land as a resource is a distinct advantage in socialist countries like China and Viet Nam where land is owned by government. In these countries, land is usually not sold outright but leased for periods of 50 to 70 years. Land use fees fund urban infrastructure and services, with the attendant drawback that such investment tends to encourage short-term developments. Elsewhere in Asia, where land is privately owned, using it as a resource to support development is a more complex endeavour. In these countries (for instance, Bangladesh, India, the Philippines and the Republic of Korea), the government must purchase private land at fair market value if it is to be used for public purposes, though the process can entail expensive and long drawn-out litigation.

1.6.7 Performance in service delivery management

Water supply and sanitation. Traditionally in urban Asia, water providers tended to be more interested in expanding networks than in proper management. As a result, under the Millennium Development Goals, sustainable access to drinking water and basic sanitation has improved between 1990 and 2008. However in recent years, good water managers have highlighted demand regulation and management as a solution to water problems. Demand regulation and management includes rational allocation of water among competing users based on a system of priorities, using quotas as a method of water allocation, and appropriate pricing. In the past few years, some utilities have proved particularly successful against various socio-economic and political backgrounds, such as Hai Phong, Jamshedpur (India), Manila, Phnom Penh and Singapore. Their experience can provide a basis for performance improvement by others. Experience has shown that community involvement in sanitation can help improve the provision of and access to these services. Successful experiences in utility management should be replicated in order to improve water supply and sanitation services in Asian-Pacific cities.

Solid waste collection and disposal. One of the major challenges faced by Asian-Pacific cities is the collection and disposal of solid waste. Most urban authorities have set up specialist departments to deal with this issue, but their efforts are often complemented by community-based alternatives where voluntary grassroots groups fill the gaps in waste collection. This type of scheme is found in Bangalore (garbage collection and composting), Dhaka (marketing of backyard-produced compost), Chennai (collection, sorting, recycling and composting), and Delhi and Hanoi (waste collection and recycling). However, in many instances, private solid waste collection and disposal companies and local government units have not been supportive, often viewing civil society groups as overly critical and, at times, confrontational competitors. As a result, these environment-concerned efforts have rarely been integrated into municipal solid waste management systems. Local authorities should build and facilitate partnerships with civil society initiatives and community-based alternatives in order to improve solid waste collection and disposal services.

1.6.8 Cooperation networks

The recognition of good governance as a vital development instrument has given rise to national, regional and global cooperative networks that enable various types of participants to exchange ideas, best practice and lessons learned, sharing them with municipal officials, administrators and researchers. United Cities and Local Government (UCLG) is a worldwide association of local government organizations dating back to 1913. The UCLG Asia-Pacific Regional Section supports “strong and effective democratic local self-government throughout the region/world through promotion of unity and cooperation among members” and facilitates

information exchange among local authorities in the region. CITYNET, a regional network of local authorities, supports the strengthening of institutional planning and management capabilities at the local and grassroots levels through technical cooperation among local authorities as well as governmental and non-governmental bodies.

In almost all Asian countries, associations of local governments and local government officials are there to support good urban governance. For all their hard work, four main factors tend to dampen their effectiveness, namely: (i) local officials often belong to political parties and partisan groups and this tends to make sustained and truly collaborative actions difficult; (ii) elective local officials may be in office only for short periods, which stands in the way of continuity in the implementation of policies and programmes; (iii) many of the associations either lack or have poor financial and technical capacities of the type required for effective good governance; and (iv) given the wide variety of local governance systems in Asia, lessons learned in one jurisdiction might not always be replicable in others.

1.6.9 Urban governance, management and finance: Diagnosis and future challenges

The Asia-Pacific region has made significant strides in the transition to more participatory and democratic forms of governance. This is particularly apparent in Bangladesh, Indonesia, Malaysia, the Republic of Korea, and Taiwan, Province of China. Other countries – India, Pakistan, the Philippines and Thailand – have embarked on decentralization (in the form of deconcentration, delegation and devolution of powers to local/urban authorities), although any tangible benefits remain to be fully realized. In a number of countries, a significant proportion of urban dwellers now enjoy the benefits of liberal democracy, such as grassroots participation and engagement of civil society groups in public affairs.

However, financial empowerment largely remains a challenge for Asia's urban authorities, and many are still found struggling to provide basic infrastructure and services. If urban governance is to be effective and sustainable, devolution of authority and power to urban authorities is needed, along with adequate financial, revenue-raising and human capacities. Decentralization requires central government support to avoid excessive regional disparities within countries. The International Guidelines on Decentralization and Strengthening of Local Authorities (as approved by the UN-HABITAT Governing Council in 2007) highlight the principle of subsidiarity as the “rationale underlying the process of decentralisation”. While decision-making should be as close to the citizen as possible, decisions of public interest should be taken at the level where they can best be carried out; the Guidelines recommend increases not just in local authority functions, but also in the capacities needed for the effective exercise thereof. For instance, Indonesia's 2001 “autonomy laws” show how the principle of subsidiarity can be effectively mainstreamed into a country's decentralised framework.

With regard to urban management, the delegation of power to urban authorities encompassing metropolitan areas arguably has prevented these from fragmenting into autonomous units. This urban management approach has had positive effects in countries in transition like China and Viet Nam, where mixed or unified metropolitan governance has delivered urban services in an efficient way. As might have been hoped, water supply, public transport, energy generation and distribution, and wastewater and solid waste management are the services most favoured by coordinated management under area-wide authorities. At the same time, smaller local authorities have improved capacities in areas like water and electricity charge collection or even solid waste management thanks to community engagement.

In the same vein, since the highest rates of urban growth in the Asia-Pacific region are found in smaller cities and towns, these must be empowered to manage their own development. Urban governance initiatives should be directed to smaller settlements, in the process stimulating development in adjoining rural areas. Well-formulated, well-executed city cluster development schemes can bring a number of benefits, including much-needed employment and integrated infrastructure and services.

In the Asia-Pacific region, most urban authorities are still financially dependent on higher tiers (central and/or state/provincial) of government, which control the bulk of tax revenues and are often reluctant to share with urban authorities. In some Asian countries, however, urban authorities have been able to tap dormant or fresh financial resources. In India, Malaysia and the Philippines, computerization of tax rolls has significantly increased revenues from property taxes. China, India, Indonesia and Viet Nam have harnessed private sector participation in large-scale urban infrastructure. On top of this, the Asian Development Bank has also developed innovative techniques (like loans denominated in local currencies) to finance urban infrastructure and services. Some urban authorities have resorted to information technologies and e-governance to improve revenue-raising, keep the populations informed and involved, and take advantage of global development opportunities. In this regard, the collection, analysis and dissemination of accurate and reliable information about urban trends has a crucial role to play if urban authorities are to be in a position to formulate and implement well-adapted, forward-looking reforms in the face of current and forthcoming challenges to achieve sustainable urban development. Raising the financial resources required to face those challenges remains a serious issue for most urban authorities in the Asian-Pacific region.

Environmental problems are increasingly making themselves felt in the cities and city-regions in Asia and the Pacific. However, most local officials are only beginning to understand how carbon taxes can raise the resources needed to mitigate or tackle climate change. More extensive sharing of information about carbon taxes and other innovative revenue generation methods is needed if local officials are to manage urban settlements and improve urban living conditions in a forward-looking way.

In Asia and the Pacific, as in other developing regions, environmental issues represent an important future challenge for urban governance. However, current and basic urban development issues remain to be addressed, such as poverty eradication, sustainable development (economic, social and environmental), social equity and the security of individuals and their living environment, which together only strengthen the case for integrated approaches. Good urban governance is inextricably linked to the welfare of the populations. It enables women and men to access the benefits of urban citizenship, including adequate shelter, security of tenure, safe water, sanitation, a clean environment, health, education and nutrition, employment, and public safety and mobility. Most importantly, good urban governance provides citizens with the platform that allows them to use their talents to the full in order to improve their social and economic conditions.

Last but not least, local government associations have an important role to play in lobbying for devolution of powers to local authorities and promoting city-to-city ('C2C') cooperation in order to support sharing and exchange of lessons learnt and good practices in the areas of sustainable urban development. In the Asia-Pacific region, local government associations, both at regional- and national-level, must step up their efforts in order to support their members as well as partners in their quest for good urban governance.

1.7 The Structure of the Report

This first-ever *State of Asian Cities 2010/11* report (the Report) is divided into five chapters. Throughout the Report, an effort has been made to discuss the issue of inclusive and sustainable urban development based on the latest information available, with documentation of good practices and examples in boxed items. The Report uses the demographic data from the *World Urbanization Prospects 2009*, the latest available from the United Nations.

Chapter 2, *Urbanising Asia*, reviews urban demographic trends and patterns in Asia-Pacific and its five subregions; this includes the 'youth bulge' and population ageing; the factors behind emerging mega-cities, mega urban regions and urban corridors; the demographic growth and roles of small- and medium-sized cities and towns and their development challenges; and urban densities and the pace of urbanisation in Asia-Pacific.

Chapter 3, *the Economic Role of Asian Cities*, focuses on the role these play as engines of economic growth: the trends prevailing in the five subregions; the main drivers of their urban economies; and the issues related to urbanisation and the informal economy. The Chapter shows how Asia is gradually diversifying away from the role of the 'factory of the world' to embrace the global 'knowledge economy' and develop international financial centres, with the challenges the region faces in this process. The Chapter concludes with a review of the role of Asian cities in local development.

Chapter 4, *Poverty and Inequality in Asian Cities*, lists the region's achievements in the drive against extreme poverty

and examines the challenges of deprivation and inequality. The Chapter commends Asia for improving the lives of 172 million slum-dwellers over the past decade, well beyond the relevant Millennium Development Goal. The Chapter goes on to discuss the critical issues of land and housing as well as access to basic urban services.

Chapter 5, *the Urban Environment and Climate Change*, looks into the challenges of economic growth and environmental sustainability, which are particularly acute in Asian-Pacific cities. The defining features of the environmental challenges are discussed, followed by a review of current conditions. With regard to cities and climate change, the Report examines the issues of mitigation and adaptation, and highlights some good practice. By way of conclusion, the Chapter outlines the ways in which urban planning and management could be improved to tackle environmental issues and climate change.

Chapter 6, *Urban Governance, Management and Finance*, first discusses urban governance and operational structures, and proceeds with a review of the principles of urban governance and their practice in Asia-Pacific. The types of urban governance systems operating in Asia today are examined next, followed by a review of mega urban regional development and its challenges, and decentralization efforts in Asia. The various institutional frameworks for financing of urban development are reviewed in detail, followed by a discussion of performance in service delivery management. Finally, the Chapter highlights the role of the regional and national cooperation networks of local authorities (especially city-to-city) and the challenges they face.

A *Statistical Annex* features the latest urban data available from the *UN World Urbanization Prospects 2009* (published in 2010). The data on slums and related issues are reproduced from the *State of the World's Cities 2010/11* report and the *2010 Update of the Joint Monitoring Programme for Water Supply and Sanitation*.