

# 1. New Agenda for Sustainable Development of APEC Cities

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The economies of the Asia-Pacific region form the largest geographic concentration of people, wealth, cities and natural resources on earth. The region has some of the fastest-growing and most developed economies in the world. Its impressive development has reduced greatly levels of poverty and brought many benefits to people living and investing in the region, but development has also created problems and challenges of a physical, economic, social, environmental and governance nature. APEC can play a key role in bringing governments and business together to meet these challenges and help make the development of cities in the region more sustainable.

Overcoming the challenges will be difficult; and better linkages, partnerships, coordination and collaboration between governments and business at various levels of government, along with governance arrangements involving multilateral organizations, will be necessary.

The Asia-Pacific is vast, with 46 economies spread around the Pacific Ocean rim. Distances and travel times between cities and economies in the region are substantial. Despite this, APEC economies are becoming increasingly interconnected and dependent on each other for their growth, development, trade, investment, and security.

**Figure 1.1 Asia-Pacific Region and APEC Member Economies**



Source: APEC, 2014.

With over 75 percent of gross domestic product (GDP) and jobs produced by cities, the future of the APEC region depends on the sustainable development of its cities. However, the population of some of Asia's cities is growing at more than 5 percent per annum, which makes it almost impossible to meet demand for housing, infrastructure and basic services.

In 2014, APEC released a discussion paper outlining a framework for an **Asia-Pacific Partnership to Shape the Future of Urbanization and Sustainable City Development**.<sup>1</sup> The paper sought to bring to the attention of APEC member economies the critical role that could be played by better management of urbanization and city development, for the future prosperity and sustainable development of the region.

The discussion paper called for the adoption of a new agenda for APEC to make the region's cities more sustainable, by making them better places in which to live, learn, enjoy, invest and do business. The agenda calls for creative, collaborative and innovative solutions and thinking; new forms of partnerships for the development of the region's cities; together with new policies and strategies to improve the management of urban and economic development. It calls for greater inclusiveness, equity, and engagement of women and the poor in the management and development of cities. These elements are essential to advance the development of cities in the region.

The discussion paper set out why there is a need for an Asia-Pacific Partnership to address urbanization and sustainable city development. It drew on a series of working papers on five cities and four urban corridors, highlighting important lessons about the ways cities in the region were addressing urbanization and sustainable development issues.<sup>2</sup> The role of innovation and partnerships in identifying solutions was stressed.

The working papers provided valuable insights into sustainability initiatives by cities in the region, involving partnership arrangements to support sustainable urban development. APEC

**Partnerships are part of the new Agenda for the Sustainable Development of APEC Cities**

saw merit in developing these working papers further as exemplars of good practice, and to conduct some additional studies which would expand upon different aspects of sustainability in areas of urban governance, finance, planning and development, social and community needs provision, and environmental management.

This book presents a series of case studies that describe initiatives and partnerships to support the sustainable development of cities in the APEC region. It commences with a profile of urbanization and cities in the region, discusses some challenges facing the development of cities, and presents the framework used for the presentation of the case studies which are presented as separate chapters. The rationale for selection of the cities, metropolitan regions and corridor studies is discussed later in the chapter. The closing chapter draws together the findings, learning and insights gained from the case studies. It draws conclusions about the benefits of using partnerships to facilitate sustainable urban development projects and programmes for the region's cities. Finally, it outlines a potential role for APEC to support good practice partnerships for sustainable urban development in the Asia-Pacific region.

## 1.1 URBANIZATION IN THE REGIONAL CONTEXT

Urbanization – the process leading to the greater spatial concentration of people and economic activities in urban settlements – has been occurring for centuries. At the turn of the twentieth century, an estimated 15 percent of the world’s population lived in cities.<sup>3,4</sup> Since then, the urban population has risen to 53 percent of the global population.<sup>5</sup> Unique to the APEC region is the speed and scale at which urbanization has occurred, especially in Asian economies. Urbanization has boosted productivity in all APEC economies, driven by the liberalization of world trade and capital markets and, increasingly, by labour markets. However, economic gains have come with social and environmental costs, which are impacting on the productivity and liveability of cities in the region, at both local and global levels.

Over the next 35 years to 2050, an unprecedented increase will occur in the urban population in the APEC region. The region currently accounts for around 46 percent of the world’s urban population, or 1.8 billion people. Currently, around 60 percent of the region’s population live in urban areas; this is expected to reach 77 percent by 2050. By 2050, the urban population is expected to increase to 2.4 billion. Some economies are more than 80 percent urbanized; and many others are urbanizing rapidly. Fourteen of the world’s 37 megacities are in the Asia-Pacific region.

Table 1.1 shows urban population growth and expected trends to 2050 for APEC member economies. The population growth rates of cities across the region’s economies vary significantly. The current average urbanization growth rate for APEC member economies is around 1.8 percent per annum. This is projected to fall to 0.3 percent by 2050.

Urban growth rates of APEC member economies in North and South America are generally much lower than those in Asia, Oceania, and Australasia. Economies like Japan have a negative urbanization rate, with their population in decline. Many of the developed economies of the region will continue to grow at over 0.6 percent per annum due to high levels of international migration. The Asian APEC member economies’ urban growth rates will expand at much higher rates, generally over 2 percent. This will challenge their ability to provide services.

**Table 1.1 Urban Population of APEC Member Economies, millions, 2000–2050**

APEC economies	2000	2005	2010	2015	2020	2025	2030	2035	2040	2045	2050
<b>Australia</b>	16.8	18.1	19.9	21.4	22.9	24.4	25.8	27.2	28.6	30.0	31.3
<b>Brunei Darussalam</b>	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5
<b>Canada</b>	24.4	25.8	27.6	29.4	31.1	32.8	34.3	35.7	37.1	38.3	39.6
<b>Chile</b>	13.3	14.3	15.2	16.0	16.8	17.5	18.1	18.6	19.0	19.2	19.4
<b>China</b>	459.4	560.5	669.4	779.5	874.4	947.5	998.9	1,030.0	1,044.4	1,050.8	1,049.9
<b>Hong Kong, China</b>	6.8	6.9	7.0	7.3	7.5	7.7	7.9	8.0	8.0	8.0	8.0
<b>Indonesia</b>	87.8	103.1	120.2	137.4	154.2	170.1	184.9	198.0	209.2	219.1	227.8
<b>Japan</b>	98.9	109.2	115.3	118.6	119.4	118.7	116.9	114.4	111.5	108.6	105.8
<b>Korea</b>	36.6	38.3	39.7	41.0	42.2	43.2	44.1	44.7	45.0	45.0	44.7
<b>Malaysia</b>	14.5	17.2	20.1	22.9	25.5	28.0	30.2	32.0	33.5	34.9	36.2
<b>Mexico</b>	77.6	84.5	91.7	99.2	106.3	113.0	119.0	124.2	128.6	132.1	134.8
<b>New Zealand</b>	3.3	3.6	3.8	4.0	4.2	4.4	4.5	4.7	4.9	5.0	5.2
<b>Papua New Guinea</b>	0.7	0.8	0.9	1.0	1.1	1.3	1.5	1.8	2.1	2.5	3.0
<b>Peru</b>	19.0	20.8	22.5	24.5	26.5	28.4	30.2	31.7	33.1	34.4	35.4
<b>The Philippines</b>	37.2	40.0	42.3	45.2	48.9	53.5	59.2	65.9	73.3	80.8	88.4
<b>Russia</b>	107.7	105.7	105.8	105.2	104.4	103.2	101.9	100.9	100.0	99.1	98.0
<b>Singapore</b>	3.9	4.5	5.1	5.6	6.1	6.3	6.6	6.8	6.9	7.0	7.1
<b>Chinese Taipei</b>	15.3	16.4	17.3	18.0	18.6	19.0	19.2	19.3	19.1	18.8	18.3
<b>Thailand</b>	19.6	24.6	29.3	34.0	37.9	41.0	43.1	44.3	44.7	44.7	44.3
<b>United States</b>	225.0	238.3	252.2	265.4	278.8	292.2	305.4	317.7	329.0	339.8	350.3
<b>Viet Nam</b>	19.7	23.2	27.1	31.4	35.7	39.9	43.7	47.2	50.4	53.3	55.7
<b>Total urban population</b>	1,287.7	1,456.0	1,632.6	1,807.2	1,962.9	2,092.6	2,196.0	2,273.6	2,328.9	2,372.0	2,403.8

Source: United Nations, Department of Economic and Social Affairs, Population Division, *World Urbanization Prospects: The 2014 Revision* (New York: United Nations, 2015).

**Table 1.2 Urban Population Growth Rates in APEC Member Economies, percentage, 2000–2050**

APEC economies	2000–2005	2005–2010	2010–2015	2015–2020	2020–2025	2025–2030	2030–2035	2035–2040	2040–2045	2045–2050
Australia	1.5	1.9	1.5	1.4	1.3	1.1	1.1	1.0	0.9	0.9
Brunei Darussalam	2.7	2.3	1.8	1.5	1.3	1.1	0.9	0.7	0.5	0.4
Canada	1.2	1.3	1.2	1.2	1.0	0.9	0.8	0.7	0.7	0.7
Chile	1.4	1.2	1.1	1.0	0.8	0.7	0.5	0.4	0.3	0.2
China	4.1	3.6	3.1	2.3	1.6	1.1	0.6	0.3	0.1	0.0
Hong Kong, China	0.2	0.4	0.7	0.6	0.5	0.4	0.2	0.1	0.0	0.0
Indonesia	3.3	3.1	2.7	2.3	2.0	1.7	1.4	1.1	0.9	0.8
Japan	2.0	1.1	0.6	0.1	-0.1	-0.3	-0.4	-0.5	-0.5	-0.5
Korea	0.9	0.7	0.7	0.6	0.5	0.4	0.3	0.1	0.0	-0.1
Malaysia	3.5	3.1	2.7	2.2	1.9	1.5	1.2	0.9	0.8	0.7
Mexico	1.7	1.7	1.6	1.4	1.2	1.0	0.9	0.7	0.5	0.4
New Zealand	1.5	1.1	1.1	1.0	0.9	0.8	0.8	0.7	0.6	0.6
Papua New Guinea	2.4	2.2	2.1	2.5	2.8	3.2	3.5	3.7	3.5	3.3
Peru	1.8	1.6	1.7	1.6	1.4	1.2	1.0	0.9	0.7	0.6
The Philippines	1.4	1.1	1.3	1.6	1.8	2.0	2.2	2.2	2.0	1.8
Russia	-0.4	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
Singapore	2.8	2.5	2.0	1.5	0.9	0.8	0.6	0.4	0.3	0.2
Chinese Taipei	1.4	1.0	0.8	0.6	0.4	0.2	0.0	-0.2	-0.4	-0.5
Thailand	4.7	3.5	3.0	2.2	1.6	1.0	0.5	0.2	0.0	-0.2
United States	1.2	1.1	1.0	1.0	0.9	0.9	0.8	0.7	0.6	0.6
Viet Nam	3.3	3.2	3.0	2.6	2.2	1.9	1.6	1.3	1.1	0.9
Average growth rate	2.5	2.3	2.1	1.7	1.3	1.0	0.7	0.5	0.4	0.3

Source: United Nations, Department of Economic and Social Affairs, Population Division, *World Urbanization Prospects: The 2014 Revision* (New York: United Nations, 2015).

Canada and the United States of America are among the most urbanized economies in the world, with almost 80 percent of the population living in urban areas (Table 1.2). Many of the cities in North America have experienced rapid urban growth in the past, but population growth has stabilized, forcing the cities to undergo dramatic transformations.

The previous rapid transformation and growth of cities in Latin American APEC member economies were accompanied, at times, by violent conflicts over land, marked environmental deterioration, and deep social divides. While growth rates in those economies have reduced, a substantial deficit remains in the provision of infrastructure.

By 2050, APEC member economies in Latin America will reach urbanization levels of almost 87 percent. By 2050, it is expected that the annual rate of urbanization will slow to 0.3 percent.<sup>6</sup>

## **1.2 A REGION WITH MORE, BIGGER AND GREYING CITIES**

The APEC economies have more than 825 cities with populations greater than 300,000 people.<sup>7</sup> The pattern of development, the rate of growth and the age of cities vary widely across the region. Cities like Luoyang and Beijing in China date back thousands of years. Most of the region's cities, however, are less than 100 years old. During the late nineteenth to the latter half of the twentieth century, North and South American and Japanese cities grew very rapidly, as urbanization rates peaked. Australasian cities have continued to grow steadily, as the economies in that part of the region continue to absorb growing numbers of migrants, increasingly from Asia.

### Photo 1.1 Expansion of Chinese Cities: Tianjin South



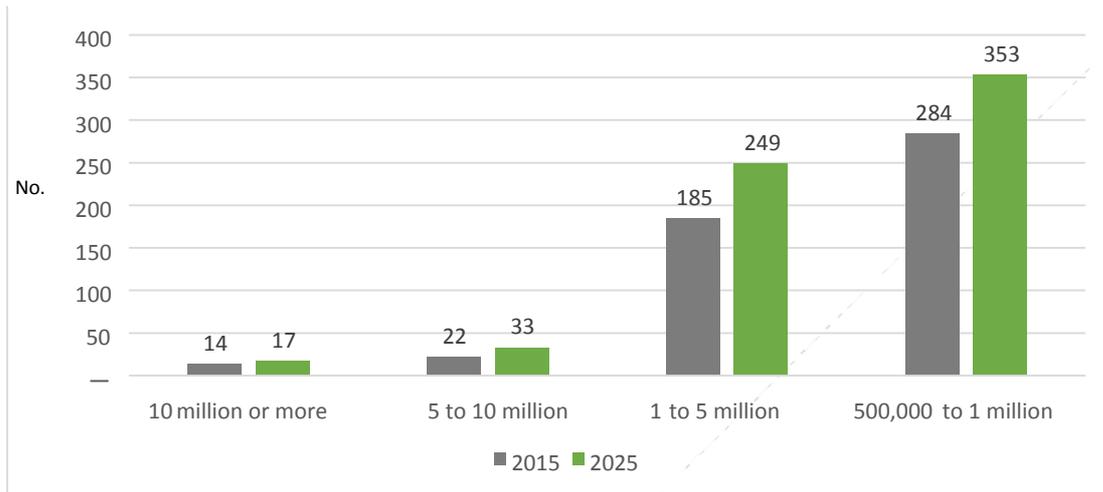
Credit: John Courtney.

For the next three decades, most urban populations in the APEC region are expected to live in cities of less than 500,000 people. The population of larger cities will grow faster than small cities. Many of the smaller cities will have fewer financial and physical assets, and skilled resources to plan, manage and accommodate urban growth. Most will struggle to attract investment.

Figure 1.2 shows the expected increase in the number of cities by population size in the region. An additional 64 cities with populations between 1 and 5 million, and 67 cities of between 500,000 and 1 million people, are expected to be added to the region by 2050, most of them in China.

The dominant feature of the region is its megacities. There are 15 megacities, and it is predicted that a further 17 will be added by 2025. Collectively, these megacities are home to 7 percent of the region's population and 15 percent of the urban population. These cities are emerging along corridors to form supra cities, as has occurred along the Pearl River Delta between Guangdong and Hong Kong. Other corridors of cities are developing in North and South America, and several Southeast Asian economies. These patterns of development can be seen clearly in the night imagery of the South American and Southeast Asian part of the APEC region (Photo 1.2).

**Figure 1.2 Expected Growth in Cities by Size in APEC Member Economies, 2015–2025**



Source: United Nations, Department of Economic and Social Affairs, Population Division, *World Urbanization Prospects: The 2014 Revision* (New York: United Nations, 2015).

**Photo 1.2 Lights Showing Emerging Corridors of Cities in South America (left) and East Asia (right)**



Credit: NASA (2015).

In some APEC economies, such as Australia, Canada, the United States, Thailand, Japan and China, city populations are quickly ‘greying’. Other economies in Asia, such as the

Philippines, continue to grow relatively rapidly, and their cities' populations are correspondingly younger. This difference in population age is not mirrored in APEC Latin America, where, in most economies, the proportion of the economically active population is higher than in the past. This situation is expected to last for at least 30 years before the phenomenon of ageing sets in, as is currently occurring in Chile.<sup>8</sup>

There are significant challenges for economies with ageing populations, such as the proportionally higher expenditure required for social services and health. In Japan, Korea, Canada and Australia, the percentage of persons active in the workforce is expected to fall dramatically as the post-WWII baby boomer populations retire. This will place enormous burdens on these economies' taxation systems.

Table 1.3 shows the distribution of the urban population in APEC member economies for cities of different sizes. In 2015, an estimated 54 percent of the population of APEC member economies live in cities or towns of less than 1 million people, while 14 percent live in megacities. By 2025, the urban population is estimated to increase to 2.4 billion, with a rising proportion of the urban population living in medium-sized cities of between 1 and 5 million.

**Table 1.3 Population in APEC Member Economies by City Size as a Percentage of the Total World Urban Population, 2015**

Cities' populations	No. of cities in the world	No. of cities in APEC economies	Percent world cities (%)	Pop. of cities in the world ('000s)	Pop. of APEC cities ('000s)	Percent world pop. (%)	Percent APEC urban pop. (%)
<b>10 million or more</b>	<b>29</b>	14	48	451,145	227,692	50	14
<b>5 to 10 million</b>	<b>40</b>	22	55	281,226	149,617	53	9
<b>1 to 5 million</b>	<b>449</b>	185	41	887,590	376,993	42	23
<b>500,000 to 1 million</b>	<b>587</b>	284	48	403,053	198,409	49	12
<b>Less than 500,000</b>				1,903,779	681,654	36	42
<b>Total</b>				3,926,793	1,634,365	42	100

Source: United Nations, Department of Economic and Social Affairs, Population Division, *World Urbanization Prospects: The 2014 Revision* (New York: United Nations, 2015).

The proportion of the population living in megacities will remain stable at around 14 percent. Population growth in cities of less than 1 million is expected to be slower. Their populations will account for less than 42 percent of the urban population of APEC member economies by 2050. Secondary cities, with populations of between 1 million and 5 million, are expected to experience the strongest growth pressures over the next 30 years.<sup>9</sup> Many such cities are likely to be components of a cluster of cities in metropolitan regions or larger urban development corridors. Significant differences exist in the population growth rates of secondary cities in APEC member economies.

In Asia, APEC member economies that are relatively less urbanized – China, the Philippines, Viet Nam and Indonesia – will see their secondary cities experience the highest urban growth rates. In China, this is predicted to exceed 6 percent annually for cities of between 5 and 10 million people. In most other APEC member economies in Asia, urban population growth rates will be highest in cities with populations of between 1 and 5 million. In the Philippines, the figure is projected to be 10.8 percent.

In smaller cities, the range will be between 2 and 3 percent for cities of less than 1 million and around 1.2 percent for cities with populations of less than 500,000. Small cities of 50,000 or less are likely to experience little or no population growth. In Japan and Korea, urban growth rates will remain stable but are predicted to decline in cities with populations of less than 500,000. In Canada, the United States, Mexico and Australia, cities are expected to grow by 1 to 2 percent per annum. Many smaller cities will experience population growth rates of less than 1 percent.

In the Latin American region, the number of cities has increased six-fold in 50 years. Almost half the population live in cities with over 500,000 inhabitants. About 14 percent of cities have populations greater than 10 million. Mass rural–urban migration has lost its growth-propelling role. Migration has become more complex: between cities, or between economies, and from city centres to the periphery, and between secondary urban centres. Urban expansion has caused an increase in administrative burdens, and large conurbations have come into being, sometimes including large urban territories consisting of multiple municipalities. Lima, Mexico City and Santiago de Chile are examples of newly emerging city regions. A distinctive feature of urbanization in Latin America is the rapid growth of secondary cities, which are already home to nearly 40 percent of the region’s urban population.<sup>10</sup>

### **1.3 CITIES ARE THE REGION’S DRIVERS OF ECONOMIC GROWTH AND PROSPERITY**

The 21 member economies of APEC comprise around 40 percent of the world’s population and produce more than 53 percent of global GDP. This was estimated in 2012 at USD 35.8 trillion based on purchasing power parity (PPP). APEC member economies include half the world’s megacities; 22 (55%) of the world’s cities with populations of 5–10 million, 185 (41%) of the cities with populations of 1–5 million, and 284 (48%) of the cities with populations of 0.5–1 million. These percentages are expected to increase only slightly over the next three decades as population growth and urbanization rates rise.

Cities in the APEC region are transforming rapidly. In general, cities in East Asian and Latin American economies contain some of the largest megacities and metropolitan regions in the world. Along the Pearl River Delta between Hong Kong, China and Guangzhou, the world’s first supra city is emerging, with a population of 50 million people. Further expansion of this city is planned, for the creation of an agglomeration of networked city clusters of between 10 and 25 million people.<sup>11,12</sup> The growth and development of these cities are being driven by rapid industrialization, accompanied by high levels of rural–urban migration. In the more advanced member economies, cities are going through an enormous transition from manufacturing, to the services, knowledge,

and advanced manufacturing sectors. Urban regeneration and the revitalization of city centres in these economies have brought about resilience in new economic activities and socio-demographic changes.

In most APEC member economies, urban areas contribute more than 75 percent of GDP. In 201, the 100 largest cities in the region produced an estimated USD 1,759 billion or 29 percent of global GDP.<sup>13</sup> Globalization, free trade agreements, improved communications, and exchanges have been responsible for the region's remarkable growth, which has led to borderless systems of cities.

#### **1.4 CHALLENGES FACING THE FUTURE DEVELOPMENT OF APEC CITIES**

Cities in APEC member economies are transforming rapidly. The growth of many cities in middle-income economies has been driven by forces of rapid industrialization and the agglomeration of economies, but also by progressive reforms to various levels of governance and structural changes designed to make economies and cities more efficient and competitive. These changes have boosted growth; but they have often been associated with high levels of environmental damage and social dislocation associated with rural-urban migration, including cross-border and international migration.

In the developing economies and cities of the region, economic development and employment have grown rapidly. However, backlogs in strategic infrastructure and poor planning and urban management are affecting both the productivity and liveability of cities in the region. These costs and delays threaten the future competitiveness of APEC cities.

In advanced APEC member economies, many cities have experienced a very difficult transition from manufacturing to advanced services based economies. A significant range of economic activities and employment has been generated in the advanced services sector, the knowledge economy, and technology-based manufacturing industries. However, unemployment and under-employment rates, income disparities, and social disadvantage remain stubbornly high. Urban regeneration is bringing about the revitalization of old city centres, resulting in new economic activities and significant socio-demographic changes. These inner-city centres are beneficiaries of proactive responses to change, increasingly involving partnership arrangements with business and local communities.

**Photo 1.3 The Greying of Cities: Hunter's Point Naval Shipyard Buildings, San Francisco**



Credit: Shaping San Francisco Digital Archive.

Globalization, free trade agreements, improved communications, and exchanges are leading to a more borderless system of engagement in trade, investment, knowledge and people flows between cities in the region. These flows are increasing in the more prosperous and rapidly growing cities of Asia and Latin America, creating some enormous development challenges for city governments. These challenges include shortfalls in planning capacity, physical infrastructure, investment capital, environmental management and the provision of housing. Addressing these shortfalls, along with improvements in urban governance, liveability, competitiveness, and support for local economic development, trade, and urban management, are essential if sustainable urbanization and development is to be achievable for many cities in the region.

Globalization has led to significant shifts in the location of production, with Asian APEC economies being the major beneficiaries. While all economies within the APEC region have benefited, several have experienced massive losses of industrial jobs and the closure of hundreds of industrial areas (Photo 1.3). Inner-city residential and industrial areas, especially in the USA, have greyed, falling into decline and/or dereliction. Older inner-city areas, until recently, have become homes for the migrants and poor. Returning grey areas to green and prosperity is a major challenge for developed economies like the USA; Australia; Canada; and Japan.

These forces of change have a broad impact on the region. Technological change is threatening the 'cheap labour' export-led growth model. Demographic change, particularly the greying of cities, both in advanced and some Asian member economies such as Korea and Japan, will have a profound impact on consumption and savings patterns and on the way people live in cities. These changes call for more proactive and responsive approaches to the management of urbanization to address the challenges facing cities in the region and to maximize the gains from more sustainable and green forms of economic growth.

Governments at all levels play a significant role in shaping the economic and physical development of cities and metropolitan regions. With the removal of tariffs and other

trade barriers as a result of globalization and free trade agreements, economies, cities and rural regions are exposed to greater competition. While governments in Asia have sought to encourage competition, most have tended to protect local economies and businesses from competitors – to foster the growth of local firms and employment. In many economies, these policies have resulted in markets underperforming, low levels of productivity and significant labour inefficiencies.

#### **1.4.1 Women and Development**

Inequities between men and women in their rights, roles and recognition, and the impact of this on the development of APEC cities, remain a significant issue for the region. Median female (+15 years of age) participation in employment in the region has risen from 50.45 percent in 1990 to 56.7 percent in 2014.<sup>14</sup> However, this compares to 76 percent for men. In some APEC member economies – e.g. Chile; Mexico; Peru – this gap has reduced significantly in recent years. In Thailand; China; Japan; and the USA, the gap is narrowing as their populations age. In Korea and Chinese Taipei, it is declining. The employment participation rates of women across the APEC region fell slightly after the global financial crisis and have changed little since.

The gender inequality index (a Human Development Index based on three dimensions of inequality, namely, reproductive health, empowerment, and labour market participation) across APEC member economies has improved markedly from a median of 0.71 in 1990 to 0.81 in 2014. However, significant gender differences in income and poverty levels remain.<sup>15</sup> Women in APEC cities are more severely disadvantaged than men, with those who are heads of single-parent families being particularly affected by the high rents and cost of living. Women experience a higher rate of urban poverty than men in APEC cities.<sup>16</sup> Women's participation in senior management or government and business varies between APEC economies but remains low.

The role of women and their contribution to the development of APEC cities need to be more fully recognized. According to the 2007 Economic and Social Survey of Asia and the Pacific, restrictions on women's access to employment are costing the Asian region USD 42–47 billion per year. Another USD 16–30 billion per year is lost in economic development opportunities because of gender gaps in education.<sup>17</sup> These losses have risen significantly since 2007, even as female participation rates in the urban workforce remain relatively stable. Added to the above are the social and personal costs of inequitable access to housing, capital markets, and social services. In the Latin American member economies of APEC, the contribution of women to the economy has improved due to higher workforce participation rates, but could be enhanced substantially.

Greater opportunities must be given to women in the leadership, management and development of cities, especially in economic development. There remain persistent barriers hindering women from making a greater economic contribution to the development of cities. This needs to be addressed through innovative and creative policies and programmes. APEC could work with its member economies to recognize (through trade agreements, legislation and advocacy) the right of women to participate more actively in the sustainable development of urban economies in APEC and to promote women's equal rights in the city, as agreed under UN-Habitat's New Urban Agenda initiative.<sup>18</sup>

## **1.5 THE NEW ECONOMIC GEOGRAPHY OF CITIES IN THE REGION<sup>19</sup>**

In the aftermath of the global financial crisis, questions began to be raised regarding the sustainability of a model of development that places emphasis on pursuing economic gains without accounting for the associated environmental and social impacts.<sup>20</sup> Many natural resources are finite and are becoming harder to recover. Congestion, air and water pollution are adding to the transaction costs of business and government. These challenges are leading to a growing interest in green cities<sup>21,22</sup> as a way of merging the need for cities to be competitive and productive but less wasteful of resources and energy.

The impact of urbanization on the economic, social and physical environments have created a global debate on sustainable versus competitive cities, and how to harmonize the two. Could these powerful forces be made to complement, rather than oppose, each another? Could there be collaboration and competition, or co-opertition,<sup>23</sup> in the ways business and cities compete for and do business?

### **1.5.1 NEG Trends**

These challenges and questions are shaping a new economic geography of cities (NEG)<sup>24</sup> – changing the spatial development of cities, driving efficiencies in urban economies and increasing the urgency of implementing sustainable resource management and production systems. This has seen a trend toward more creative and specialized industries, clusters and innovative societies. Service industries are becoming more dispersed, and manufacturing more concentrated, in cities.<sup>25</sup> There is increasing focus on reducing externalities and transaction costs to create competitive advantage as well as liveable and prosperous cities.

### **1.5.2 Responding to the NEG**

Because of their preeminent position in the economies of the APEC region, cities must be the focus of the response of member economies to the NEG model of economic development. To benefit from the disruptive innovations emerging within, and forming, the context of the NEG – and increase their wealth base while paying attention to the common good – cities would have to explore ways to stretch and leverage common resources to reduce transaction costs for governments and business.<sup>26,27</sup>

To successfully do so, cities would need to recognize the importance of transparent and flexible governance systems, and integrated urban planning and logistics systems. To use resources efficiently both for the common good and to reduce business costs, cities need to develop shared strategic infrastructure; a diversity of human capital and culture; and creative and innovative industries.

The NEG also suggests the increasing relevance of pursuing collaborative advantage. Traditionally, economies competed for trade, investment and economic development activities based on comparative advantage. However, economies and cities are losing control and influence over where investment occurs; with the opening up of economies, the proliferation of bilateral and multilateral free trade agreements and greater freedom of movement between economies, cities are having to compete much more vigorously for trade and investment, much of which is controlled by large domestic and multinational

corporations. Learning how to create and apply collaborative advantage is particularly important for secondary cities, given that they have to overcome the economies of scope and scale enjoyed by large metropolitan region cities.

Cities must proactively address the implications of the NEG: ‘If governments responsible for the management and development of cities do not align and maintain their spatial and economic planning and systems with the emerging NEG of economies and cities, their prospects for ever achieving strong, sustainable and liveable cities are very limited.’<sup>28</sup> Partnerships and collaborations are essential – across different levels of government and between the public and private sectors. It is also crucial that this message be heard by city leaders, especially those in less developed regions.

### **1.5.3 The Main Debates**

Understanding the NEG and the forces shaping it will be key to effective city planning and management in the future. An important question relates to the spatial economics of cities. Many large cities are made up of a loose federation of smaller local governments (e.g. Jakarta, Lima, San Francisco), which creates healthy competition for jobs and investment. However, this often leads to dispersal and dilution of the competitive power of clusters, and subsequent loss of competitive advantage for metropolitan regions. Congestion, rents and land costs often drive firms to the periphery of cities as part of a process of de-industrialization, as is occurring in Bangkok and Manila. The NEG is thus leading to debates about the merits and costs of clustered (or agglomerated) versus dispersed production systems.

It has also been observed that economic activities, especially in the major cities, are unevenly distributed across urban areas, with multiple centres of concentrated economic activities surrounded by lower-density ‘peripheral’ cities. This raises further questions: ‘what economic interactions there are between these different geographical areas and how do these shape income levels in urban areas, and how does the spatial organization of economic activities respond to various shocks, such as global recessions, technological change or policy measures?’<sup>29</sup>

Further to the above, the spatial nature and flow of supply chain transactions occurring within cities is still not well understood. As cities and their industrial supply chains become more networked, not much is known about how to make the inter-modality and seamlessness of spatial infrastructure supply chains more efficient. Knowledge about the interaction and spatial dependency of logistics systems, hubs and nodes, and the utilization of connecting systems in cities, is very poor. How can these be improved? And how can city-to-city infrastructure and supply chain linkages be made more efficient and integrated? The NEG is less concerned with nation-to-nation trading and investment, than with strengthening the linkages to support city-to-city trading, co-investment, and economic development opportunities.

The NEG raises the urgency of understanding ‘what drives the development of cities, how city economies are different, what makes a city competitive, and how a city can align itself in a new global, and more competitive, system of trade and development’.<sup>30</sup> The consequences of getting this wrong are significant. Recent work on the impact of inefficient land markets on US cities has estimated that, as a result of this factor alone,

US GDP was some 13.5 percentage points less in 2009 than what it would have been had more effective land markets been operating over the previous 45 years.<sup>31</sup> The resultant implied losses are in the millions of jobs and tens of billions of economic products.

Considered responses to these questions are vital for the future planning and management of cities. With the lack of data on aspects of the NEG, there remain diverging views on the form the NEG of cities should take,<sup>32</sup> especially in the context of lesser developed economies. For example, there is still no clear answer on whether it would be more efficient for cities to focus on developing metropolises or whether they should promote a more dispersed human settlement and employment pattern.<sup>33</sup>

## **1.6 CHANGES IN THE TYPOLOGY OF CITIES**

The effect of the internationalization of economic activities under free trade and structural adjustment programmes is that many industry clusters, especially in the region's developed economies, are no longer competitive and they have either died, scaled down and become more specialized, or relocated offshore. At the same time, with the advances in information technology and computer-based manufacturing and robotics, capital-intensive production is gaining ground over labour-intensive production. These trends have seen cities undergo a metamorphosis, which is reflected in recent transformations in their skylines, especially in the central business, regional commercial and industrial districts.

Such changes imply that we need to review how cities should be classified and understood. Historically, cities were defined hierarchically based on population size. Globalization has rendered this problematic. Bangalore, for example, is a secondary city in India in terms of the population hierarchy but holds a primary position when considered in terms of its function in global information and communications technology (ICT). Kuala Lumpur is a primary city of Malaysia, but a secondary city globally in terms of trade and investment. Functionality, not just population and scale, is increasingly relevant in classifying cities.

Insights into how various APEC primary and secondary cities fit into an emerging global typology of cities are needed. Such analyses could enable cities, particularly those in the lesser developed economies, to be more strategic in deciding on which sectors to focus on to compete more effectively for trade and investment within their domestic economy and internationally. This would be particularly important for diversifying the economic base of cities in Asia.

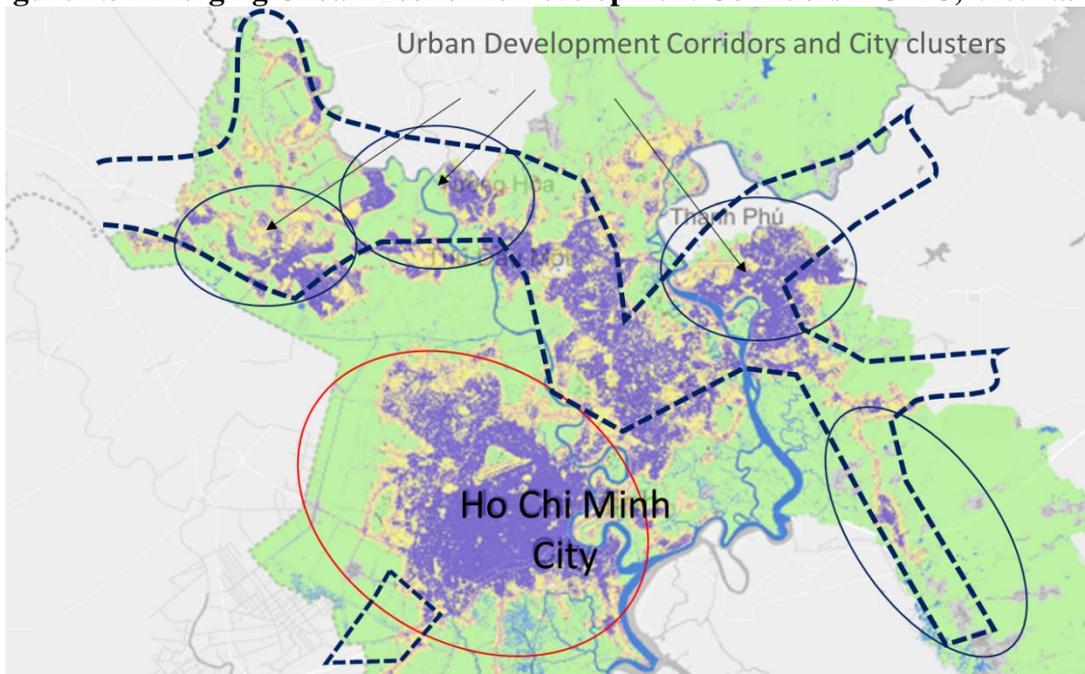
Functional classification and competitiveness assessment of cities' industrial clusters provide new opportunities for understanding urban systems.<sup>34</sup> By classifying cities based on functional specialization, spatial regularities in the distribution and structure of urban functions may be identified, and hypotheses about the resulting patterns formulated. This makes it possible to ascertain, for example, whether cities with a more diversified economy grow at a faster rate than those with a more specialized economic base. There is evidence suggesting that cities that foster the development of industry clusters as a means of enhancing their competitiveness perform better than those that are less

specialized and put greater focus on developing more broad-based, consumption-driven economic activities.<sup>35,36</sup>

Together with the functional changes occurring in APEC cities, there is a new type of geographic typology change taking place. As the larger cities in the APEC region have grown, the spatial development pattern of emerging metropolitan regions has tended towards becoming more polycentric. This takes the form of a large primate city urban centre with a peripheral ring of clustered secondary and intermediate cities. This pattern is beginning to change in response to growing problems of congestion and accessibility. With the development of freeways and the upgrading of national highways between large primary and secondary cities urban economic development corridors are emerging comprised of a network of linked or chained clusters cities spread along these main arterial transport routes. The phenomenon of urban economic development corridors, linking new and expanded urban centres is becoming wide spread. Some of these, like the corridor between Jakarta and Bandung are becoming very large.

A good example of an emerging corridor development city is Ho Chi Minh City in Viet Nam. Figure 1.3 shows the development pattern of the urban corridor and the clustered pattern of cities which are emerging. These urban corridors and cluster of cities extend more than 70 kms in the case of the Ho Chi Minh City, Biên Hòa to Vung Tau urban development corridor. This corridor has become a long linear city, speared out 2-3 km either side of the highway. More and more cities in the region are developing along highway corridors. In some cases, this pattern of development is being fostered by PPP toll ways projects where developers are given rights to develop new towns along the corridor route.

**Figure 1.3 Emerging Urban Economic Development Corridors HCMC, Viet Nam**



Source: Adapted from base map (Angel et al 2012)

## 1.7 THE SUSTAINABLE CITY DEBATE

The increasing drift of the rural poor to cities is viewed by many in the region as a factor preventing the sustainable development of cities. However, no nation has achieved any level of economic development without urbanization.<sup>37</sup> Urbanization has boosted productivity in the region, driven by the liberalization of world trade, and capital and labour markets. Urbanization in the region has been a very significant factor underpinning the growth of the global economy for more than four decades.

The economic gains have come at a cost. In the race to achieve middle-income status, social and environmental problems have been given a lower priority in public policy and the budget allocations of member economies. The attitude of some developing economies in the region is that the more advanced economies deferred these costs when they were developing, so there is no reason for developing economies to be prevented from pursuing the same strategy. However, such an approach to development, which was recognized more than 60 years ago by the economist Kuznets,<sup>38</sup> is no longer viable given that most of the world's population now live in cities, and most cities are consuming resources beyond the capacity of natural and social systems to replenish or supply.

There is little doubt that cities in the APEC region are experiencing significant development challenges. These are not insurmountable, but substantial changes in the development models used will be needed if the growth of cities is to become more sustainable. The sustainability debate begins with the recognition, by governments, business and communities, of the need for change. The major challenge is how. Few answers have been forthcoming. One certainty is that if the change is to occur, multiple strategies and solutions by a broad range of interest groups and partners will be required. In many cases governments and cities in the region will have to cooperate and collaborate in partnerships and other collective efforts.

Rapid urbanization and development of cities has always been problematic. Few fast-growing cities have the resources, capacity, and governance systems to manage development and keep ahead of infrastructure and housing demand. Cities in the region face similar challenges. Climate change-related issues, better urban management, greater choice and range of housing, and the challenges of traffic congestion and pollution are sustainability problems common to all cities. However, solutions to these issues will require localized initiatives and the development and application of local technologies and practices. It is essential that these be linked to the level of urbanization, to geography and customs, and to the physical and economic state of a city's development.

All cities go through technological, economic and physical lifecycles of development. Some cities in the more developed economies of the region are experiencing urban decline, decay, and employment loss. Some of these cities are regenerating through urban renewal projects. Urban revitalization is attracting jobs, creating growth and improving security in inner cities. However, large parts of these cities still have inadequate quality housing, vacant industrial land and fragmented land ownership patterns that make the consolidation of land for redevelopment expensive and time-consuming.

Another way of achieving sustainable city development is by fostering more polycentric cities, with multiple nodes of employment and activity centres distributed across

metropolitan regions. This helps to balance employment, provide choice and reduce the need to build, operate and maintain large public transport and infrastructure systems. Both development approaches – urban revitalization and polycentric cities – have merit and support sustainable development. However, other creative solutions for urban development, design and management must be adopted if cities in the region are to become truly more sustainable.

To bring greater clarity to the sustainability debate, it is essential that common shortfalls in the management and development of the region's cities are analysed more rigorously. Across the income spectrum of APEC member economies urban governance, the basis of effective urban management and development, is relatively weak and sometimes corrupt. Urban planning has proved ineffective and, in many cities, planning systems have become devices for rent-seeking.

The poor delivery and management of infrastructure and ICT systems significantly reduce the efficiency of logistics systems. Shortages of investment and public capital from taxes lead to severe shortfalls in public and private services. Poor environmental management affects public health and the productivity of urban workers. For the disadvantaged and poor, urban poverty and the shortage of housing add to the stress of living in cities. These are priority areas in the sustainability debate for improving the competitiveness, efficiency and liveability of cities. Improvements in urban governance, liveability, competitiveness, and support for local economic development, trade, and urban management are needed to improve the functionality and efficiency of cities in the APEC region.

The above discussion illustrates the many dimensions and complexities of the debate on how to make urbanization and the development of cities in the region more sustainable. Issues such as climate change, the third industrial revolution, refugees and food security add variables to an already complicated equation in developing an urban metabolism for cities in the region that is more balanced and stable. The debate about urbanization and the sustainable development of cities in the region cannot be settled by short-term thinking and regulation. Nor can new technologies provide quick solutions to the many development challenges facing the region.

## **1.8 DEFINING SUSTAINABLE CITIES**

The sustainable cities debate requires a new economic development model for cities. This must be underpinned strongly by a set of sustainability principles agreed by the region's economies. First, however, there must be wider debate on how cities can be made more sustainable. Secondly, a framework is needed from which cities can progressively work toward greater sustainability. That framework must include mechanisms for collaboration and partnerships for sustainable urban development.

Development experts agree that sustainability can be defined as the ability of people and societies to meet present needs without sacrificing future generations' ability to meet their needs.<sup>39</sup> Most cities are consuming resources at rates substantially beyond the capacity to

replenish them. The debate on sustainable cities, therefore, must focus on decoupling the relationship between energy and resource consumption, and economic output.<sup>40</sup>

Urban sustainability is centred on the goal or idea that cities can be organized without excessive reliance on the importation of resources and capital and should be self-sustaining. However, no city can be said to be sustainable unless potentially, as in China, the boundaries of the ‘city’ encompass an urban economic region and its hinterland. City self-sufficiency for most economies, therefore, is not achievable in a strict sense; nor is it ever likely to be. Cities were born from the need of agricultural societies to have permanent marketplaces for trade and the exchange of goods and services, and from the need to have bases for resource extraction and trade. Thus, many of the region’s very old cities have their origins as market cities. Given their isolation, they had to be ‘sustainable’ in relation to their context. It was only much later, as rural populations grew, that manufacturing and trade services were developed. Without the expansion and development of trade and other exchanges between cities and between regions, and the resulting increase in per capita income, urbanization would not be the unsustainable phenomenon we know today.

The aim of sustainable city development is to optimize production and output to create the smallest possible ecological footprint; produce the lowest quantity of pollution possible;<sup>41</sup> make the most efficient use of land; reuse materials; recycle or convert waste to energy; and minimize the city’s overall contribution to climate change. Sustainable cities also have environmental, governance, physical development and social dimensions. Equity, social justice, distribution of wealth, prosperity, representation and accountability are equally important dimensions of sustainable cities and regions. How to balance these multiple dimensions of sustainability to create better places for people to live, work and enjoy, now and in the future, are core principles underpinning the development of sustainable cities. The application of these principles in supporting the sustainable development of cities in the region will be addressed throughout this book.

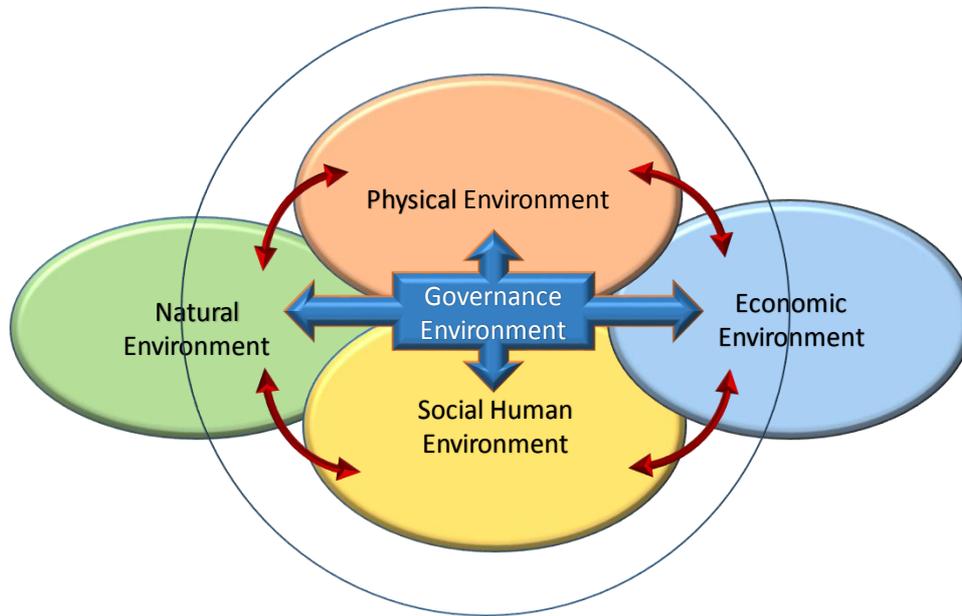
## **1.9 A FRAMEWORK FOR SUSTAINABLE CITY DEVELOPMENT**

Throughout the region, there are increasing limitations on the availability and use of natural resources to support the needs of people and urban systems of cities.<sup>42</sup> Globally, natural resources and capital are being depleted at an alarming rate. In Asian economies especially, there is excessive drawdown – beyond natural replacement levels – of non-renewable resource stocks such as water, forests, soils and marine environments. This could have a severe impact on food security, health, material supplies and, in the north-western Pacific economies, in particular, on flooding. For cities throughout the region to become more sustainable, maintaining the balance of natural-capital stocks on which they depend to produce consumables, for building other types of assets, and for waste sinks, requires a better system of management than exists at present.

Underlying their economic output, cities depend not only on natural-capital stock – environmental assets – but also on three other interacting asset classes: social capital (mainly human capital), community capital (mainly physical infrastructure) and

economic capital (the assets of enterprises). Cross-cutting these domains, and providing the means of integration, are the governance systems of the city.

**Figure 1.4 Five Key Transactional Elements of a Sustainability Framework for Cities**



Source: Authors.

Five key elements of sustainability shape the framework for sustainable development of cities (). The governance environment is core to the framework. Governance strongly influences the natural, social, physical (community strategic infrastructure) and economic environments. The governance environment shapes the way cities, societies, communities and groups make rules and decisions about the allocation and use of resources.

A wide range of governance processes is used throughout the region to shape the way we use, convert and transform natural, physical, social and economic capital. By and large, it is the decisions of individuals who live and work in cities that determine how these different forms of capital are used and transformed; and it is this that is causing the imbalance in the sustainability balance sheet. Cities in the advanced economies are consuming at rates more than double the capacity to replenish natural resources. For example, Canadian cities have an ecological footprint (a measure of resource consumption of populations) that is almost twice that of Korean cities.<sup>43</sup>

The challenge is to adopt a development model that will allow for the progressive transition of the current consumption patterns of the region's cities to a level where natural-capital stocks can be restored or balanced without jeopardizing the ability of future generations to enjoy a quality of life, education, employment and necessities similar to that enjoyed by people living in the region's cities today.

To make cities more sustainable, policymakers must understand that development decisions involve trade-offs in the use of resources and the way these are used for

consumption, exports, and asset creation. National accounting systems measure these factors, including GDP and other economic data. Governments and business rely heavily on this data for planning, budgeting and expenditure outlays.

Accounting for social and environmental capital was introduced by the United Nations (UN) National Accounting Integrated Environmental and Economic Accounting system in 2000.<sup>44</sup> Most economies in the region use the UN system for reporting in the national accounts. Cities are also beginning to use the UN system, making the expenditure of public funds more environmentally, economically and socially accountable. Two APEC cities that have adopted the UN system of environmental or green accounting are Yokosuka City in Japan and Melbourne in Australia.<sup>45</sup> The UN accounting system offers a good way to measure the balance and flow of the stock of economic, social and environmental capital of economies and their cities.<sup>46</sup>

Given that more than 75 percent of the region's labour force, economic production and capital formation occurs in cities – a figure that will increase in future as more people move to or end up living in cities – the region's urban governance frameworks will have a very significant impact on the formation and use of natural capital. To enable them to understand and influence such investment in a more sustainable direction, cities in the region will need to adopt localized sustainability accounting systems, including the preparation of city capital flow statements and balance sheets. These will become important in the planning, development and management of cities and metropolitan regions. This change will be very challenging for many cities in the region, given their poor traditional accounting systems. Few cities know the current value of their public and private assets; many have no reliable estimates of GDP; and most know little about the levels of carbon emissions, or the extent of knowledge capital.

Systems of sustainability accounting could be adapted readily to the development and management of cities. Their use will have a significant impact on shaping the outcomes of sustainability efforts in the region. They provide a sound quasi-empirical basis for negotiations aimed at more sustainable development outcomes at member-economy as well as local levels. More data and information are needed to inform how the governance, environment and systems of economies at various levels can be changed to achieve more sustainable development outcomes in cities. It is in the systems of cities where the problems of climate change, pollution, poverty, income disparity and inequity are now most apparent and have the potential to become much more severe. The problems of climate change, in particular, will not be resolved without reform of the urban governance arrangements that determine the allocation of resources and consumption patterns at the local level.

Improvements in trade, investment, and economic development will not occur without reforms to urban governance. Problems of equity, poverty, housing and environmental health will not improve without changes to urban governance. The interaction and trade-offs between consumption of resources and the production, or loss of capital, between the five environments shaping sustainability ( ) will not be the same for all cities. Each city in the region is different, and the approaches to sustainability will need to be tailored to each city. However, many of those decisions will need to be cognizant of the consequences of local actions on the wider system of cities in the region, each of which will become increasingly reliant on others for their future development and prosperity.

## **1.10 CHALLENGES TO ACHIEVING SUSTAINABLE URBAN DEVELOPMENT IN THE REGION**

Future development and management of cities in APEC member economies must be put on a more sustainable, equitable and inclusive development footing if the region is to prosper; and the problems associated with rapid urbanization are to be managed better. As discussed earlier, cities of the region are made up of complex structures and interacting systems that have enabled those cities to thrive and develop. The structures include the physical infrastructure, assets and buildings that mould the physical system and form of cities. The systems are the economic, social and governance arrangements and the networks of infrastructures that enable cities to function.

Many aspects of urban systems in APEC member economies' cities are overloaded and function poorly. This is manifest in problems of congestion, distorted land and property markets, environmental hazards, crime and low levels of productivity. In this complex environment, applying the framework for sustainable city development ( ) to the analysis of current systems could help establish clear priorities for development. This section summarizes the issues based on an analysis previously conducted for the region.<sup>47</sup> It describes the key social, environmental, economic, physical, and governance challenges.

### **1.10.1 Poverty**

While there have been many successes and considerable improvements in living standards and working environments for the region's poor, in many cases, the absolute number of people living in urban poverty has not reduced, but is in fact rising.<sup>48, 49</sup> Indonesia, Mexico, Papua New Guinea, Peru, the Philippines, and Thailand have all experienced increased absolute numbers of urban poor.<sup>50</sup>

**Photo 1.3 Slum Settlements: A Major Challenge to Improving Living Conditions in Some APEC Economies**



Credit: B.H. Roberts.

Urban poverty is linked to the inability of cities to provide essential infrastructure and services. Following the slowdown in growth resulting from the 2007 global financial crisis, job creation in cities has become increasingly important. Without new jobs, continuing knowledge-building and better information systems, there is a risk that some of the region's cities will experience a depreciation in their economic, social and environmental capital. Cities in the region that are experiencing a high level of urbanization cannot afford to let this happen. APEC member economies, G20 members and local governments in the region recognize this problem, and are focusing on policies to mobilize capital and resources more effectively and efficiently, but within a framework of sustainable city development.

**1.10.2 Social and Environmental Costs**

The social and environmental costs associated with production and consumption of goods and services, particularly costs arising from pollution, should no longer be transferred from one city in the region to another so that one enjoys a higher quality of life than another. This simply denies the true costs of production and consumption. Governments and consumers have willingly ignored the cost of pollution and public health on people living in the cities of developing economies. As a result, many developing cities, particularly in the Asian region, have very high pollution rates, while cities in the advanced economies have cleaner air. This is not an equitable distribution of the full costs of producing goods and services across the region. This inequity could be addressed if governments and consumers in the region were prepared to accept full environmental and social costs by introducing greater transparency and accountability into their national accounting systems.

### **1.10.3 Governance**

Changing the direction of city development requires new governance systems. All cities operate and function in response to a complex set of interacting flows and forces that shape the dynamics of urban systems and their impact on the environment. Urban governance provides the overarching structure that guides and manages these flows and forces. Urban governance is the strategic architecture<sup>51</sup> or blueprint for decision-making concerning a city's development goals. It includes the use of capital and other resources; the laws, rules, plans and policies that govern society; and the delivery of urban development, infrastructure and community services, investment and the desired image of cities.

The causes of urban governance and management failure in Asian and other cities have been extensively documented. The United Nations Development Programme (UNDP) Strategy Paper on *Sustainable and Inclusive Urbanization in Asia*,<sup>52</sup> the UN-Habitat report on *The State of Asian Cities* and the Asian Development Bank (ADB) study on *Managing Asian Cities* provide a comprehensive review of why urban systems are failing to deliver more sustainable city development outcomes. Other reports and studies have explored similar themes.<sup>53</sup>

While there are compelling arguments about the need to reform urban governance systems in the region, the ways to do this are by no means clear or easy. Recent structural adjustment programmes, while reforming major institutions and industries, have not led to notable change at the local government level, especially in secondary cities. Traditional management models proposed for restructuring local governments based on consultative and western corporate business practices often do not align well with cultural values and workplace practices. If reforms are to occur, new urban governance systems and practices are required to guide Asian cities towards a more competitive and sustainable development future.

A key challenge in addressing the causes of poor urban governance lies in determining which causes of failure or weakness should be addressed first, and this requires extensive research and consultation with stakeholders who play a significant role in decisions that shape the development of cities. The research conducted for this book included a series of workshops, an expert panel, desktop research and consultations with government officials to focus on specific aspects of urban governance that are proving particularly problematic. Areas of concern identified as having a significant impact on the failure of urban governance were governance arrangements, strategic planning, and resource management. These areas are covered in many of the book's case studies.

### **1.10.4 Managing External Factors and Risks**

Cities in the region must also recognize the importance of managing a range of external factors (especially risks) that affect them. Factors such as competition and globalization will require actions to boost competitiveness, foster local endogenous economic growth, adopt more inclusive and transparent governance, and create greener cities; this would require more collaborative approaches to the management and development of cities.<sup>54</sup>

While local governments can act on some of the external risks facing them, they have limited capacity to influence the impact of free trade agreements, exchange and interest rates, freedom of information, and global internet retailing. They must, however, find ways to adapt and compensate for these factors at the local level, and inform local communities about potential consequences. Job creation, initiatives to attract investment, improvements in the efficiencies of government and logistics systems, improved living wages and living conditions, and well-managed urban development will be essential priorities for cities seeking to manage external risks and competition.

### **1.10.5 Information Systems**

To improve the management of cities and put them more firmly on the path to sustainability, better data and analytical methods are necessary to assess problems, monitor trends and model solutions. Establishing systems for data collection, and accounting for financial and resource flows, and for assets, are some of the most basic and difficult challenges in the development of cities in the region. All cities in the region should identify and value all public assets and prepare corporate balance sheets to enable better management of physical-capital stock.<sup>55</sup> While time will allow the replenishment of some of the natural-capital stock, cities can ill afford to allow economic, physical, social and human capital to depreciate or become depleted.

### **1.10.6 Managing Stocks and Flows**

The sustainability of cities will require the stabilization of the city's total capital stock, usually requiring the rebuilding of its natural capital. This task is even more challenging because most of the damage or the depletion of the natural-capital stock has occurred in the hinterlands and corridor systems that supply the daily needs of cities. The restoration of environmental capital in cities is not just an urban problem, but a rural-urban problem associated with rural-urban linkages.<sup>56</sup> For this reason, the sustainability of cities is a systems problem that will call for the development of frameworks for creating networks encompassing cities and their hinterlands that are underpinned by governance systems that are more cooperative and collaborative. A key element of cooperation and collaboration will be the formation of a wide range of new partnership structures between cities, their governments, businesses and communities. This is an area in which APEC could play a leading role.

### **1.10.7 Free Trade Agreements**

For decades, many larger cities have engaged in sister city relationships. Most of these have involved agreements that encourage greater cultural and business exchange between the cities. Many cities are also involved in partnerships and networks. While networks and partnerships between cities appear to be a sensible way to boost economic outcomes for member economies and the region, as a whole. A study in New Zealand that reviewed cities' international networks found little hard evidence of them doing so.<sup>57</sup> The study found:

*... that there are few common themes showing networks (especially sister city networks) have added value over time while others have folded before their effectiveness could be observed. Some networks are top down, central*

*government driven and others are bottom-up, local government driven. Some focus on contiguous regions while others are dispersed. Some focus on a specific task, such as lobbying central government, while others coordinate various back office functions and interventions.*<sup>58</sup>

The research shows that in most cases the networks have not been particularly influential in bolstering trade and investment between cities because many economies still have trade and investment barriers embedded in their laws and regulations. The study also found that international city networks that focus on improving economic performance are more effective if they concentrate on improving institutional settings. But even these have had limited impact, as the drivers of economic growth (human capital, physical capital and technology) are usually addressed by central government policy, usually in a siloed manner (not integrated in ways useful to a city), and seldom in collaboration with cities. There is, therefore, a disconnect between local economic development and partnerships between cities, and trade and development initiatives under free trade agreements between economies. Central governments tend to forget that the machinery of trade and investment between economies is located mostly in cities.

With the emergence of arrangements like the North American Free Trade Agreement (NAFTA) and the Trans-Pacific Partnership,<sup>59</sup> which includes many APEC economies, cities will be in a better position to engage in city-to-city trade arrangements. The Trans-Pacific Partnership between the USA, Canada and 10 other economies in the Asia-Pacific region is expected to eliminate tariffs on goods and services, remove a host of non-tariff barriers and harmonize many regulations among APEC members. These members account for 40 percent of the world's GDP and 26 percent of the world's trade. Other trade partnerships likely to develop in Asia under the Association of Southeast Asian Nations (ASEAN) will significantly open competition and increase the level of engagement between cities in Southeast Asia.

In South America, the Pacific Alliance was established in 2011 to create a Latin American bloc of economies and a gateway into Asian markets.<sup>60</sup> The bloc, made up of Chile, Colombia, Mexico and Peru, is engaged in commercial, economic and political integration among member economies. These economies account for more than one-third of Latin America's GDP. The Southern Common Market (Mercosur) bloc, which includes Chile, accounts for 20 percent of Latin America's GDP.

Existing and new free trade agreements will bring significant challenges for cities. While the agreements will reduce many of the barriers that have prevented sister city relationships fully developing between economies, there are now significant constraints on investment and trade in cities themselves. Issues such as poor logistics systems, labour performance, corruption, lack of single window approval systems, and restrictive legislation and practices, will bring pressure upon cities in the region to undertake reforms and investments that may not be popular in local communities. Addressing how cities engage with communities in introducing changes that create new opportunities for trade, investment and economic development under a more open and competitive market will be challenging, particularly for cities that have been relatively protected from international competition.

### **1.10.8 The Third Industrial Revolution**

Industrial revolutions have had a profound impact on shaping the way we produce things, where we live, and our progress toward more equitable and prosperous societies. The first and second industrial revolutions were driving forces in shaping modern-day society. Those revolutions witnessed significant changes over two and a half centuries – in ideology, social hierarchy, manufacturing and distribution, international relations, trade linkages and, most notably, technological advancements.

The emerging third industrial revolution (TIR) will also have significant effects – changing almost every aspect of our society, especially the way we live and plan.<sup>61,62</sup> There will be greater use of computer-aided manufacturing and three-dimensional (3D) printing, which will have the effect of reducing the marginal cost of production, eliminating economies of scale for many short-run manufacturing costs.

The TIR will fundamentally change both the nature and spatial location of manufacturing processes; capital/labour cost ratios; and place a much greater focus on efficiencies and time delivery costs of manufacturers and distributors. It will increase demand and reduce unit costs in the production and supply chain for designer-driven products such as fashion, pharmaceuticals, construction and accessories. It will also provide equity of access to many goods and services in regions that are not able to create competitive advantage through economies of scope and scale. In essence, for many products and services (especially for simple manufactured goods and replacement parts), product supply chains will become more concentrated on the sourcing and delivery of materials for 3D printing and on materials recycling.

The effects of the TIR will be a progressive reshoring and glocalization of many manufacturing activities, reinvigorating small-scale local manufacturing of personalized products. This is a response to technological changes toward more personalized medicine, home and consumer-designed products. The effect of this long-term in the APEC region is that cities with exogenous export manufacturing will face increasing competition from local TIR firms. These firms will have the advantage of minimal production transaction costs, minimal transport costs and almost no intermediary costs. One recent Australian study<sup>63</sup> suggests that more than 40 percent of current labour-based costs will be replaced by TIR technology and robotics in the next 20 years. Cities in the APEC region that rely heavily on economies of scale or export-led growth will need to adjust their economic development models. They will need to focus on fostering endogenous growth, expanding domestic markets and enhancing local productivity and the per capita wealth base to ensure a sustainable economic model for development in the future.

## **1.11 A NEW SUSTAINABILITY AGENDA FOR CITIES IN THE REGION**

Cities are critical to the implementation of the sustainable urban development agenda. The document of the United Nations Conference on Sustainable Development (Rio+20), *The Future We Want*,<sup>64</sup> reaffirmed the political commitment to addressing the persistent challenges related to sustainable development, including in cities, with a broad package of commitments for action. The UN's Sustainable Development Goals, which replaced

the Millennium Development Goals, include a goal for the development of sustainable cities. Urban policies throughout the APEC region place a high priority on the sustainability of cities. APEC's discussion paper on *Shaping the Future through an Asia-Pacific Partnership for Urbanization and Sustainable City Development* (2014) provides a framework for the organization to support a strong policy agenda for sustainable cities.

Many of the actions arising over the sustainability of cities need to be driven by political leadership and urban managers. Currently, however, there is no sustainability agenda defined for cities in the APEC region. Thus, many of the region's cities have grown in a somewhat uncoordinated, haphazard manner, leading to very uneven development and excessive stress on urban systems.

The need for sustainable city development in APEC member economies is becoming more apparent over time. Rising traffic congestion, poor metropolitan urban governance, and management, impacts of climate change, pollution, poverty, crime, low-income housing, liveability and job creation are challenges faced by almost every city in the region. The NEG paradigm carries with it its own set of challenges which are unlikely to be resolved using current approaches. Fujita cites the advantages of NEG generating centripetal forces fostering agglomeration, linkages and economies of scale, but also of the challenges of counter centrifugal forces of congestion, sprawl, commuting and other environmental externalities creating diseconomies and de-industrialization in large global cities.<sup>65</sup>

The framework for sustainable city development () is the basis for a new agenda to enable an integrated approach to support the sustainable development of cities in the APEC region. Such an agenda calls for changes in the management and development of cities, along with a strong focus on innovation, collaborative business and governance models, a focus on renewable energy and resources, efficiencies in transport, logistics and knowledge management systems, green building design, technologies, and finance. APEC, given the global significance of its economic position, its population, and scale of development, should have a leading role in shaping a new agenda for urbanization and sustainable cities – not only at the regional, but also at the global level.

APEC's efforts to support the sustainability of cities in the region will need to focus on better urban management and governance, job creation, innovation and investment initiatives that add value, and on developing the capital base of cities. These efforts will be particularly important for secondary cities, which are not receiving equitable investment. Jobs and economic growth opportunities in secondary cities are not being maximized; those cities often struggle to compete for trade, investment, skills and resources which are more abundant in the largest cities in the region.

APEC is one of many organizations that recognize the importance of managing urbanization to achieve sustainable urban development. It can play a major role as a stakeholder and partner in support of real change toward this goal within the region. It could best do this by focusing on areas where it can exert influence and mobilize resources to support innovative programmes and initiatives for sustainable urban development in APEC member economies. The emphasis should be on building partnerships to foster economic reform, build strategic infrastructure, social and

environmental sustainability, and effective urban governance at the regional policy and urban systems level.

## **1.12 NEW MODELS FOR URBAN GOVERNANCE IN SUSTAINABLE CITY DEVELOPMENT**

Many local governments in the region, faced with managing rapid urbanization, will simply muddle through<sup>66</sup> as best they can. Consequently, the development of these cities tends to be less sustainable. The quality and performance of city governance are the most significant factors in improving sustainability.<sup>67</sup> Governments, international development assistance agencies and financing banks must identify better ways to improve the management and development of cities, including their peri-urban areas. For example, investment of substantial amounts of capital in infrastructure is not sustainable if those assets cannot be maintained, or the costs recovered. Similarly, failure to integrate transport, infrastructure, and land-use planning activities with appropriate governance should not be accepted.

Developing dynamic, sustainable cities would require proactive and comprehensive action to increase economic, environmental and social sustainability.<sup>68</sup> Solutions exist to address many of the problems in these areas, and it is up to the governance institutions and agencies involved to provide the leadership and will to implement those solutions. The challenges of managing urbanization across the region occur at different scales, scope, geography and levels of development. This section introduces some key concepts of governance that need to be fostered through APEC-sponsored partnerships to lay the basis for sustainable urban development in APEC member economies.

### **1.12.1 New Public Management**

Most of the public-sector models used for governing and managing cities in the region were developed in the early part of the nineteenth century. Many were built on colonial administration models that were successful when cities were small. Urban governance was primarily driven by rules and regulations; the organizational arrangement for public sector institutions emphasized scientific method, efficiency, professionalism, structural reform and executive control.<sup>69</sup> The duties of administrators were primarily planning, organizing, staffing, directing, coordinating, reporting and budgeting.<sup>70</sup> Government agencies were organized according to a structured hierarchical system of departments. Employment was focused on a career for life, and promotion was based on experience and length of service. Throughout many of the developing regions that continues to be the model for urban governance. Unfortunately, the model is not particularly responsive when dealing with open market economies, open systems of government and merit-based employment and promotion arrangements.

In the late 1980s a new theory of urban governance called new public management (NPM) emerged. NPM was based on the idea that the public sector could improve its efficiency and develop a more service-oriented culture by drawing on private-sector management models. NPM argued for the need for greater accountability and transparency and consultation with relevant stakeholders on planning and budgeting.

The NPM model led to 'greater outsourcing of public functions to the private sector, the introduction of corporate planning, the flattening of management structures and a move towards partnerships for development'.<sup>71</sup> Economies and cities also began to see public-private partnerships as a good way to finance infrastructure development.

NPM was adopted widely in many market economies, with New Zealand; Australia; the UK; and the USA being some of the more enthusiastic. Elements of NPM have been adopted selectively in developing economies and cities, notably through the implementation of measures to introduce accountability, consultation and partnerships for development.

NPM resulted in the division of large bureaucracies into small units and the privatization of some units, such as waste management and engineering services, as these were no longer considered core to the new streamlined functions of local government. Under NPM, competition was encouraged between different public agencies and between public agencies and private firms, using economic incentives based on performance bonuses or user-pay models. It had a philosophy of treating public users of services as 'customers' or 'clients' rather than as citizen stakeholders.<sup>72</sup>

NPM governance is not widely understood or accepted by central and local governments in many Asian economies and cities. NPM can be threatening to institutions that have not previously experienced competition or pressure to become more efficient. It threatens bureaucratic power structures, nepotism, wage and working condition agreements, and opens up organizations and institutions to criticism and accountability. However, changes are now being forced on governments, particularly as a result of social media, which challenge almost every aspect of urban governance.<sup>73,74</sup> Increasingly, all levels of government will need to move towards introducing e-governance systems in public policy, planning, community engagement and information sharing.

### **1.12.2 Collaborative Governance**

Business and civil society, throughout the region, increasingly seek fresh ideas and thinking in approaches to urban governance. Many economies within the region have introduced changes for a range of decentralization processes that give local governments greater responsibility for the delivery and management of infrastructure and services. However, decentralized models of public sector management need to be built around governance principles, which are interdependent and mutually reinforcing and involve greater consultation, cooperation and collaboration between all sectors of society.<sup>75</sup>

Unfortunately, the NPM model has not provided universal success in improving urban governance performance in developing cities' economies. Many indicators of urban governance reform inherent in NPM have not improved over the past decade. New thinking and models, therefore, must be developed, tested and adopted if cities in the region are to use their assets and resources better to improve the planning and institutional governance systems.

Collaborative governance is a relatively new approach to the theory and practice of management. In the urban context, it involves a governance arrangement where one or more public agencies directly engage non-state stakeholders in a collective decision-making process that is formal, consensus-oriented and deliberative, and that aims to make or implement public policy or manage public programmes or assets.<sup>76</sup> The approach shows considerable promise in overcoming the complexity and conflicts in decision-making that affect the management of cities. It has the potential to address all the key elements of the model for sustainable city development () and guide investment in the assets of a city in a greener direction.

However, the approach needs to be further developed if it is to become more widely accepted and used. Organizations like the Asian Development Bank (ADB) and the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) have begun to investigate the applications of collaborative governance models as a way of overcoming deeply ingrained structural shortfalls in many local government systems of cities within the region. Economies such as New Zealand, Canada, and Australia have moved substantially toward a collaborative governance model as a means of overcoming impediments to better planning, service delivery and maintenance of assets in larger cities. A key element of collaborative governance is the formation of partnership arrangements for a range of services delivery.

#### ***1.12.2.1 New Ideas for City-to-City Partnerships***

Some cities have recognized the significant opportunities created by international and regional free trade agreements and have reoriented their strategic infrastructure and governance systems to reap the benefits through innovative networks and partnerships.

As with corporate business, a city's political and business leaders need to examine new ways to 'fashion strategic partnerships with their natural trading partners' cities to expand the flow of ideas, investment, talent and goods and services between their markets'.<sup>77</sup> Such partnerships could pave the way for sustainable growth by working together to, for example, remove barriers to trade and investment at local government level, and fostering collaborations between like and competitive clusters of industries that could take advantage of value adding to finished products and services at the local level to help reduce transaction costs.

An example of such strategic partnerships is the Global Cities Economic Partnership agreement signed between Chicago and Mexico City in 2013. This was not a typical sister city partnership. The scope was ambitious, involving a series of joint initiatives in trade, innovation and education aimed at enhancing the two cities' growth and their global competitiveness (see Section 10.6 for more on this partnership).<sup>78</sup> This partnership is a good model for how cities can work together in the future.

Cities can foster a broad range of partnerships, both within their jurisdictional boundaries and hinterlands and with other cities. Using a systems approach, Table 1.4 shows the different kinds of partnerships that could be developed at a local level within cities to encourage greater value adding, and reduce transaction costs in gaining access to common user services and facilities. In so doing such partnerships could make a significant contribution to sustainability through the reduction of unnecessary duplication and better utilization of resources and infrastructure, thus reducing operational costs of business and governments.

**Table 1.4 Potential for Developing Multilevel Partnerships within Cities in APEC**

	Economic	Research and innovation	Technology	Governance	Infrastructure	Labour and skills	Environmenta l
<b>Central government</b>	Co-funding LED projects Funding support for green economy initiatives	Collaborative research to improve the efficiency of urban systems	Partnerships for development of regional technology and ICT services	Multilevel planning and resource sharing processes, truly inclusive of cities, for development projects and building capacity for collaborative competition	Co-investment in infrastructure for inner-city revitalization and redevelopment projects	Partnerships with labour, and professional and knowledge industries	Collaborative partnerships and funds for city and local environmental management projects
<b>Local (city) government</b>	LED partnerships with business, providing infrastructure and support for greener production and consumption	Collaboration on urban R&D with universities	One window and single porthole access to government services	Collaborative governance involving departments and other local governments	PPPs for infrastructure delivery and maintenance	Partnerships with unions and professional organizations on skills development	PPPs for integrated waste management services
<b>Global business</b>	Industry-cluster development partnerships on best practice in green development	R&D opportunities for small-scale research	Local technology partnerships on transfer programmes	Partnerships for assessing and mitigating economic risks	PPPs with GC for infrastructure delivery, operations, and maintenance	Partnerships for skills development based on demand	Local environmental charters and support for local environmental improvement programmes
<b>Member-economy level business</b>	Support for micro-credit schemes and business support for sustainable development	R&D opportunities for small-scale research	Industry groups	Partnerships for business collaboration between cities	PPPs for smaller scale infrastructure delivery, operations and maintenance	Partnerships for skills development based on demand	Local environmental charters and support for local environmental improvement programmes
<b>Local business</b>	Local business and government networks for disseminating best practice in green industry	Collaborative localized research partnerships for SMEs	Technology partnerships for localized product adaptation	Collaborative marketing of local products and services	Local area services repairs and maintenance partnerships	Job experience, workplace partnerships with education facilities	Partnerships for application of industrial ecology and cogeneration
<b>Public utilities and institutions</b>	Low carbon investments, collaborative maintenance and revenue systems	Collaborative R&D partnerships	Collaborative partnerships for technology development	Collaborative governance agreements	PPPs	Job experience, workplace partnerships with education facilities	Cogeneration and waste recycling

NGO community	Budgeting and planning of LED projects, fostering awareness of green consumption	Monitoring and evaluation of local programmes	Localized technology transfer and development projects	Local community planning and budgeting	Local services delivery and maintenance	Labour training schemes for skills development	Local environmental management of drainage and waste
Other							Green economy initiatives

GC = Good coordination; LED = local economic development; NGO = non-governmental organization; PPP = public-private partnership; R&D = research and development; SME = small and medium-sized enterprise

Source: Authors.

Many other opportunities exist for partnerships involving collaboration and resource sharing arrangements to minimize public and private transaction costs in the region's cities. This book will explore good-practice examples of initiatives that cities have supported or adopted to facilitate partnerships for sustainable urban development.

### 1.12.2.2 City-to-City Partnerships

City-to-city partnerships, like the one between Chicago and Mexico City, are a new dimension of collaborative advantage that has significant potential to enhance the sustainability of cities in the region (Table 1.5). APEC can foster such partnerships by focusing on the 'Green and Sustainable' aspects of practice. Such initiatives will also have strong synergies with ongoing low carbon initiatives.<sup>79</sup>

**Table 1.5 Potential for Strategic Partnerships between Cities in the APEC Region**

City partnerships	City-to-city level	Regional and member-economy level	International level
Economic and trade	Intra-regional trade and investment partnerships to foster development of clusters	City-to-city trade development partnerships	City-to-city economic and trade development partnerships
Infrastructure	Metropolitan collaborative partnerships between local government units (LGUs) on infrastructure development	Collaborative partnerships for infrastructure development between cities in a member economy or the region	Collaborative partnerships for infrastructure development between cities in a member economy or the region
Social	Regional skills, education and knowledge sharing and development partnerships between cities	Skills, education and knowledge sharing and development partnerships between cities in a member economy	International skills, education and knowledge sharing and development partnerships between cities
Environmental	Integrated resource management partnerships between metropolitan, regional governments	Integrated resource management partnerships between cities and sub-regional governments	Cross-border partnerships for conservation and natural resource management

<b>Governance</b>	Metropolitan economic and trade development corridor authorities	Economic and trade development corridor authorities of member economies	Multiple economic and trade development corridor authorities
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Source: Authors.

### 1.13 FOCUS AND PURPOSE OF THE BOOK

A primary objective of this book is to elaborate on examples of ‘good practice’ and develop a framework and agenda for the sustainable management and development of cities in APEC member economies. The book uses the model for sustainable city development derived from to examine the competitiveness and efficiency of economies; strategic infrastructure; governance arrangements; innovative practices; economic reforms; and collaborative mechanisms between agencies, organizations and networks. Case studies reveal how cities leverage common infrastructure and resources in support of sustainable development; examine why there are gaps in urbanization management and urban governance, and identify policies and initiatives that cities use to promote and facilitate sustainable economic growth, trade, business development and job creation. This book has been written to support the APEC initiative for an Asia-Pacific Partnership for urbanization and sustainable city development, and the implementation of relevant outcomes of the APEC Leaders’ Meeting held in Beijing in 2014.

#### 1.13.1 Investigation into the Sustainability of Cities in the Asia-Pacific Region

The approach used to analyse the sustainability of cities in the region involved an extensive literature review and case studies. Fourteen case studies are included, which examine two different typologies in the systems of cities. These are: ‘stand-alone’ cities and metropolitan regions; and urban economic development ‘corridors’. Each case study investigates the five elements for sustainable city development identified in :

**Economic Environment** includes a profile of the economies of cities that looks at support for the investment environment, business support, and innovation. Support for the investment environment includes initiatives to attract capital and development to cities and trade development corridor areas, exploring such things as entrepreneurship, value-for-money infrastructure, labour, and property required for business. Business support and innovation involve initiatives aimed at building ‘local economic dynamism’ through financial and other support, e.g. through the development of green industry in local clusters and their supply chains.

**Physical Environment** includes not just built infrastructure and assets, but also the quality of service delivery provided by them. It includes infrastructure that is important to add value and generate higher levels of efficiency and urban economies. Building green logistics systems and other infrastructure to support local industry clusters; and the knowledge, health and wellbeing infrastructure that make cities smarter, healthier and less risky places to do business, are crucial elements of strategic infrastructure. It also includes the importance placed on the maintenance of assets which are essential to run and maintain competitive, efficient and clean cities.

**Social Environment** involves initiatives fostering a good quality of life and more knowledgeable, creative, innovative and inclusive cities. It also includes building levels of trust, lowering levels of crime and corruption, improving human rights and workplace health and safety conditions, which affect the productivity and performance of workers, especially in low-paid services and manufacturing industries. Such citizens will also push for a better environment and greener economy.

**Natural Environment (Environmental Sustainability)** is concerned with maintaining the environmental quality of cities and ensuring the replenishment of degraded natural resources. Environmental sustainability is linked to systems used to ensure clean air and water, soil, etc. It also includes reducing the use of non-renewable resources, cleaner energy and production, industrial ecology, and materials recycling.

**Urban Governance Environment** is core to this model. It is concerned with building institutions that are effective in managing multilevel urban systems and producing outcomes which make the development of cities more sustainable. Urban governance is concerned with good urban management, integrated planning, participatory decision-making, accountability and sound financial management of cities and public institutions. The urban governance environment also extends to areas of collaborative governance, partnerships, and resource sharing.

Using this framework, the case studies investigate different partnerships which have developed between the public and private sector within the various systems of cities. Several types of partnerships identified in the case studies are shown in Table 1.4 and Table 1.5. In some case studies, specific initiatives are elaborated upon further because of their significance regarding the contribution they make to the management of urbanization and sustainable city development.

In formulating policies, strategies and initiatives for an Asia-Pacific Partnership for urbanization and sustainable city development,<sup>80</sup> APEC should seek to focus its efforts on these five elements of strategic importance.

### **1.13.2 Case Studies with Insights into Best Practice**

To develop a deeper understanding of some of the challenges at a metropolitan city level, and at the suggestion of the APEC Secretariat, a number of case studies were undertaken of cities in the region. The case studies were selected after consultation with urban management experts familiar with the development of cities in the region. Case studies are a good way of gathering evidence of good practice; they provide valuable insights into the ways cities in the region are addressing sustainability issues.

Each case study identifies attributes of the five elements of sustainable city development, and partnerships that illustrate good practices that could be applied elsewhere in the region. The case studies include a range of cities, from megacities to medium sized secondary cities; and include large polycentric cities, regionally networked cities and corridor development cities. While some of these are still emerging, the case studies provide useful insights into how sustainable development opportunities can be fostered in cities located in emerging economic trade development corridors.

The ‘stand-alone city’ case studies include Auckland, Bandung, Brisbane, Manila, Lima, Kitakyushu, Mexico City, Santiago de Chile, Seoul and Taipei. The urban development ‘corridor’ cities include the Pearl River Delta, the Ho Chi Minh–Bangkok trade corridor, the Jing-Jin-Ji Circle and the Seattle–Vancouver urban corridor.

The practices outlined and lessons gained from the case studies could be adapted and applied to other APEC member economies to help shape the overarching strategies for the development of competitive and sustainable cities in the Asia-Pacific region. The lessons gained are expected to lead to a better understanding of how APEC could provide support for:

- Enhancing the investment environment through improving the productivity of human capital, providing value-for-money infrastructure services, and minimizing the bureaucracy
- Fostering innovation through providing the R&D support appropriate to industry clusters in the urban area
- Building a solid framework of business support services and encouraging the establishment of a full range of financial services accessible to the spectrum of a city’s enterprises
- Planning, financing, and building resilient strategic infrastructure appropriate to a city’s industry clusters and the systems and institutions for managing that infrastructure efficiently
- Developing a good, healthy environment, educated, engaged and empowered citizens, and enabling frameworks conducive to knowledge and enterprise development
- Delivering the environmental infrastructure, healthcare, education, water, power supply, and management systems to the innovators and investors
- Building a community consensus on safety, social inclusiveness, and environmental objectives
- Building transparent, accountable and collaborative urban governance systems that can span the spatial scope of economic organization – from cities to economic corridors between economies
- Undertaking the required planning, programme and project development, financing and implementation oversight for inclusive, resilient and climate change responsive development
- Supporting partnership programmes for sustainable development of systems of cities in APEC member economies

The case studies demonstrate the varying approach to overarching urban spatial policies in APEC member economies. Spatial urban policies for sustainability need to be targeted according to the typology and functionality of cities. APEC cities which have a focus on enhancing the economic drivers of city competitiveness, such as business dynamics, economic governance, human capital development and liveability, offer more favourable locations for business development, innovation, and investment.

#### **1.14 BUILDING MOMENTUM FOR AN APEC ASIA-PACIFIC PARTNERSHIP FOR URBANIZATION AND SUSTAINABLE CITY DEVELOPMENT**

This chapter outlines some of the challenges of urbanization and sustainable development facing the cities of APEC member economies. These challenges will need to be considered carefully by APEC as it develops initiatives under its Asia-Pacific Partnership for urbanization and sustainable city development.

This book provides background information, examples and context for discussion among APEC member economies to develop a framework for an APEC Asia-Pacific Partnership for urbanization and sustainable city development, which supports the pillars of APEC's Growth Strategy adopted in 2010. The framework will provide the foundations for establishing partnerships to help shape regional policies, strategies and initiatives; and will take time to shape. The good practices and lessons presented in the book will provide material for APEC to engage with its member economies in supporting partnership programmes engaged in activities that bring about more sustainable development of cities in the region.

Sustainable development is not just concerned with economic development and infrastructure-building, although these are very important. Cities are social places. They fulfil a wide range of social needs that must be captured in APEC's agenda for sustainable city development. Similarly, the environmental dimension of sustainable city development related to climate change and healthier cities must be given higher priority if the region's cities are to become more liveable and prosperous places. The building, accumulation and management of physical, economic, social and environmental capital are critical to achieving sustainable urban development. These elements of sustainability must be incorporated into an integrated approach to city, and thus member-economy level, development.

Support in the Asia-Pacific region for sustainable urban development by APEC, using partnerships, could encompass a range of activities. An agenda for developing such partnerships is presented in the last chapter. It is important for APEC member economies to target activities where cities could work collaboratively to leverage resources to support partnerships with member governments and organizations, international development banks, local governments, business and research and development sectors.