1.2 Urban Growth Patterns



Shanghai, China. ©**Robert Churchill/iStockphoto**

Methodology

This part of the report aims to provide a preliminary analysis of the spatial and demographic identity of the world's cities, going beyond the "one or two cities tell everything" approach that has tended to dominate most urban studies so far. The chapters analyze population changes in 2,695 cities with populations of more than 100,000 (1,408 cities from the developing countries and 1,287 from the developed countries) from 1990 to 2000. This sample of cities represented nearly 53 per cent of the world's urban population in 1990. Cities, towns and "urban villages" with populations under 100,000 were not included in the analysis because no global database systematically identifies smaller cities, although a rough estimate would suggest that they comprise some 40 per cent of the world's urban population. The data used for this analysis is based primarily on statistics from the United Nations Demographic Yearbooks for various years between 1985 and 2004 (depending on the years for which data was available in each country), published by the United Nations Statistics Division. For the purposes of this analysis, most of the data is roughly for the period between 1990 and 2000. The results of the analysis differ from the UN Population Division's World Urbanization Prospects series in two key areas: 1) The analysis is based on "city proper" populations (the single political jurisdiction that contains the city centre) rather than on the populations of urban agglomerations (the built up or densely populated area containing the city proper, suburbs and continuously settled commuter areas) or metropolitan areas (the set of formal local government areas that normally comprise the urban area as a whole and its primary commuter areas); and 2) the cities included in the sample include those with populations under 750,000 - small cities with populations of between 100,000 and 500,000 that are not included in the World Urbanization Prospects. Although, the analysis presented here does not cover all cities of the world, as data for many cities is either unavailable or outdated, it does point to general trends. The analysis was undertaken by UN-HABITAT's Global Urban Observatory in 2007.



MAP 1.2.1: CITIES THAT EXPERIENCED VERY HIGH OR NEGATIVE POPULATION GROWTH RATES BETWEEN 1990 AND 2000

Source: UN-HABITAT Global Urban Observatory

he world is now half urban. Sometime in 2008, humankind achieved a momentous milestone: for the first time in history, half of the world's population, or 3.3 billion people, lived in urban areas.¹

In some regions of the world, the urban transition occurred decades ago, in the 1950s and 1960s, if not earlier. More than 70 per cent of the populations of Europe, North America and Latin America are already urban; Asia and Africa remain predominately rural, with 40 per cent and 38 per cent of their populations living in urban areas, respectively. However, if current trends continue, half of Africa's population will be urban by 2050. In Asia, the urban transition will occur even earlier, owing to rapid urban growth rates in China, a country that is expected to be more than 70 per cent urban by 2050. Urban growth rates in India will be slower; by 2050, 55 per cent of its population, or 900 million people, will live in cities. Globally, urbanization levels will rise dramatically in the next 40 years to 70 per cent by 2050.²

Altogether, small, intermediate and large cities from the global South and North grew at 1.83 per cent from 1990 to 2000. This means that the world's urban population will swell to almost 5 billion in 2030 and 6.4 billion by 2050.

Every day, 193,107 new city dwellers are added to the world's urban population, which translates to slightly more than two people every second. But not all regions are affected by this growth in the same way or on the same scale. In developed nations, the total increase in urban population per month is 500,000, compared to 5 million in the developing world. In terms of absolute numbers, the growth of cities in the developing world is ten times that of cities in the global North. Annually, cities in the developing world grew at a rate of 2.5 per cent in the 1990s, compared to an annual growth rate of 0.3 per cent in the developed world.³

While very high urban growth rates characterize urban change in the developing world, moderate growth and decline are the norm in developed nations. UN-HABITAT analyses show that 17 per cent of cities in the developing world experienced very high growth rates of 4 per cent or more, while 36 per cent experienced high growth rates of between 2 to 4 per cent annually. In sharp contrast, nearly half of the cities in the developed world grew at a snail's pace of less than 1 per cent annually. In fact, a staggering 40 per cent of cities in the developed world experienced negative growth and suffered a population loss in the 1990s.

Urban Change in Developed and Transition Countries

The total urban population in the developed world is expected to remain largely unchanged in the next two decades, increasing from nearly 900 million people in 2005 to slightly more than one billion in 2030, and to nearly 1.1 billion by 2050 – growth resulting from in-migration of people from poorer countries, not natural population growth. On average, 2.3 million people migrate into developed countries each year.⁴ This means that immigration – both legal and illegal – accounts for approximately one-third of the urban growth in the developed world. Without immigration, the urban population of the developed world would likely decline or remain the same in the coming decades.

Low levels of natural population increase and declining fertility rates are prevailing trends in developed countries. Consequently populations are likely to shrink in dozens of rich nations, sometimes dramatically: projections show that Bulgaria's population will fall by 35 per cent by 2050; Ukraine's will plummet by 33 per cent, Russia's will decline by 25 per cent and Poland's will reduce by 20 per cent. There will be 10 per cent fewer Germans and 7 per cent fewer Italians. The populations of 46 countries, including Germany, Italy, Japan, most of the former Soviet states, and several small island states, are expected to be smaller in 2050 than they are now.⁵

These demographic trends are reflected at the city level, as well. In the last 30 years, more cities in the developed world shrank than grew. From 1990 to 2000, 4 cities out of 10 in the developed regions experienced a population loss. In contrast, only 6 out of 100 cities experienced a rapid growth rate. In Europe – where the number of people aged 60 or older surpassed the number of children under the age of 15 a decade ago – 5 out of 10 cities experienced a decrease in their populations in the same decade and only 3 per cent grew at a rapid rate.

Considering that most countries in the developed world have already attained high levels of urbanization, and given their overall low levels of population growth, they are not expected to experience serious growth in the coming decades. It is also possible that the population decline observed in previous decades will continue.

Despite a certain level of homogeneity and predictability in the rates of urban growth in the developed world, a high degree of variation in city size and patterns of growth and decline exists among the different regions. For instance, Australia and New Zealand have no cities of more than 5 million inhabitants; in Australia, the largest cities have populations of between 1 and 5 million. By far the largest proportion of Europe's total urban population (almost 70 per cent) lives in small cities of fewer than 500,000 inhabitants; Europe is also the only region in the world that does not have any megacities - cities with populations of more than 10 million. In the United States, on the other hand, while 80 per cent of the country's population is classified as living in a metropolitan area, one-third of this population lives in large cities with populations of 5 million or more.⁶ In some cases, the greater metropolitan area of a city consists of many small cities, the combined population of which is often larger than the population of the city proper. For instance, the population of the Las Vegas metropolitan area was 1.6 million in 2000, but only 478,000 people lived within the Las Vegas city limits.

Patterns of population growth and decline of cities are largely influenced by the share of population distribution in the different sub-regions and countries. While a quarter of the cities in Australia and New Zealand grew at high growth rates of between 2 and 4 per cent in the 1990s, nearly half of the cities in Europe experienced a decline in their populations; the majority were small cities with populations of between 100,000 and 500,000. In Japan, 25 per cent of cities decreased in size, while 65 per cent grew at the slow pace of less than 1 per cent annually. In North America, the patterns of growth



FIGURE 1.2.2: CITY GROWTH AND DECLINE BY CITY SIZE IN THE DEVELOPED WORLD, 1990-2000

Source: UN-HABITAT Global Urban Observatory 2008.

Note: UN-HABITAT calculations based on UN Demographic Yearbooks (various years between 1990 and 2003.) Analysis based on a sample of 1,287 cities with populations of more than 100,000.



A suburb in Madrid, Spain: Increasing suburbanization has led to population decrease in several European cities. ©iStockphoto

and decline are not so homogenous. While one-fifth of cities experienced a decline in population, a similar proportion grew at a high rate from 1990 to 2000; the fastest-growing cities were either small or intermediate cities.

European cities, in general, are not growing any more, including cities in the nations of the Commonwealth of Independent States.⁷ The population of urban centres with more than 100,000 inhabitants, taken together, remained stable during the years 1991 to 2001. Among the large cities with populations of more than 5 million, the proportion of inhabitants increased by 1.4 per cent, mainly because of the growth experienced by Moscow, the capital of the Russian Federation, which grew at the rate of 2.1 per cent annually. However, at present, the continent has none of the world's 100 fastest growing large cities with populations of more than 1 million inhabitants.

Large cities in Europe are not growing rapidly, owing in part to relatively low rates of natural population increase in countries, as well as more decentralized patterns of urban development.⁸ Larger cities and metropolitan conurbations in the United Kingdom, with the exception of London, are almost all declining in size.⁹ In Germany, Italy and Poland, more than half of the cities are decreasing in size. Among the big European urban centers with populations of between 1 and 5 million, all experienced negative growth rates, with the exception of Baku – the largest port city and capital of Azerbaijan – which grew at the rate of approximately 3.5 per cent annually in the 1990s. Increasing suburbanization may account for population decrease in some cities. The regions surrounding Stockholm, Helsinki, Sofia, Madrid, and inner London all saw their share of the national population increase by more than 5 per cent between 1995 and 2004, while populations within the city limits decreased. The populations of Dublin, Berlin and Budapest also declined, but the populations of cities and regions surrounding them increased during the same period. Population movements between European cities can also be attributed to the relaxing of immigration restrictions in the European Union, which saw populations move from economically less attractive countries to more attractive ones.¹⁰

Despite the fact that on average, the population of small European cities did not grow between 1990 and 2000, an analysis of individual cities shows that four small urban centers – York, United Kingdom; Ulyanovsk, Russia; Almere, the Netherlands; and Andizhan, Uzbekistan – experienced an annual growth rate of more than 5 per cent. Of the four, the city of York experienced the fastest annual growth rate in Europe (9 per cent) due largely to its successful economic transformation from a manufacturing centre into an information technology and biosciences hub. Ulyanovsk, a small but important industrial city in Russia, and Almere in the Netherlands both grew at the rate of 5.4 per cent a year. Andizhan, an administrative centre in Uzbekistan that is one of the main producers of cotton fibre and an agriculture and industrial development pole in the Eastern part of the



Las Vegas aerial view: North American cities are among the fastest growing cities in the developed world. ©Valerie Loiseleux/iStockphoto

country, recorded an annual growth rate of approximately 5 per cent. Twenty-five other cities experienced a high growth rate of more than 2 per cent; 10 of them were located in the United Kingdom, 4 in the Netherlands, 4 in Russia, 3 in Sweden, and the rest in various other countries.

North American cities grew the fastest among all cities in the developed world between 1990 and 2000, particularly cities in the United States, which grew an average of 1 per cent. Small cities of 100,000 to 500,000 inhabitants experienced the highest growth -1.3 per cent, on average, but as high as 5 per cent or more in some places - of all categories of cities in North America. At the metropolitan level, urban agglomerations with populations of 2 million to 5 million in 2000 grew the fastest, up to 2 per cent per year. The largest and smallest metropolitan area size categories, those with populations of 5 million or more and those with populations of less than 250,000, each grew by about 1.1 per cent annually.¹¹

The highest urban growth rates were recorded in small cities, some of which grew at the rate of 5 per cent or more per year. In the United States, Las Vegas – the gambling and tourist resort in the state of Nevada – grew at an annual rate of 6.2 per cent, and the city of Plano on the outskirts of Dallas, Texas, saw growth rates of 5.5 per cent per year; both cities benefitted from migration from other parts of the United States. Another 37 U.S. cities expanded their population at rates of between 2 and 4 per cent annually, and a significant number of them were located in the west and south of the country¹²; two of these cities – Phoenix, Arizona, and San Antonio, Texas – were intermediate cities, with populations of 500,000 to 1 million. On the other hand, cities in rust belt regions such as Detroit, Michigan, Buffalo, New York, and Youngstown, Ohio, the economies of which

were dependent on manufacturing, have suffered. They are enduring population loss, diminished local tax revenue, aging infrastructure, and middle-class flight.¹³

In Canada, small cities also registered the largest growth rates: Halifax, Nova Scotia, grew at a very high rate of 11.4 per cent annually, owing primarily to the economic expansion generated by the city's port. The city of Ottawa, the country's capital, grew at a rate of 9 per cent per year, and Vaughan, the fastest growing municipality in Canada, nearly doubled in population since 1991 as part of the greater Toronto Area. An additional 7 urban areas observed a growth rate above 2 per cent per year; among these, Hamilton, a port city in the province of Ontario, grew at the rate of 4.3 per cent annually in the 1990s, thanks in part to the endurance of competitive steel and heavy manufacturing industries and a successful shift in the last decade towards the service sector. Surrey also grew at the rate of 3.5 per cent annually during this period, mainly owing to the development of residential and commercial suburbs in an area traditionally supported by agriculture and sawmilling.

At the metropolitan level, the city of Calgary experienced the strongest rate of growth by far; its population rose by 15.8 per cent from 1996 to 2001 – from 710,000 people to nearly 1 million. Calgary accounted for 47 per cent of the total growth of Alberta province in the western part of Canada. Edmonton, the capital city of Alberta province, registered the secondhighest growth rate in the country. The dynamism of these two metropolitan areas boosted Alberta province's growth to more than three times that of the nation as a whole.¹⁴

Several metropolitan areas in Canada are also experiencing what is known as "the doughnut effect" – a phenomenon in which the inner core of a city grows more slowly than the areas around it. For instance, the population of the core municipality of Saskatoon grew by 1.6 per cent, while that of the surrounding municipalities grew by 14.6 per cent from 1996 to 2001.¹⁵

Population decline is also a feature of Canadian cities, and is a reflection of the slow growth rate of the country's total population. According to official data, one-third of all 2,607 municipalities in Canada suffered from population loss in the two decades between 1981 and 2001.¹⁶

In Australia and New Zealand, the pattern underlying urban growth or decline is not as evident as elsewhere in the developed world. Only one city out of 21 showed a decrease in its population. Yet, the overall trend in the two countries is slow urban growth, with nearly half of the cities growing at less than 1 per cent annually.

A large proportion of Australia's population lives in state and territorial capitals (63 per cent), cities with relatively small populations compared to other capital cities of the world. Higher growth in the late 1980s than in the 1990s was a common pattern for most of the country's state capitals.¹⁷ Between 1986 and 1994, the fastest growing cities were Brisbane and Perth, with a total growth of 19 and 18 per cent, respectively. Between the years 1993 and 2003, three noncapital cities - Gold Coast, Sunshine Coast and Townsville - experienced the fastest growth rates in the country, more than 4 per cent per year, mainly resulting from growth in tourism. As coastal cities continue to dominate the Australian urban system, another process at work is the consolidation of the major regional towns that grew at the expense of smaller towns in surrounding areas. Some 245 municipalities lost population, according to the 2001 census, and the process is projected to continue.18 Along with the loss of population in the small towns and rural areas, other urban regions, particularly mining and manufacturing areas, are experiencing population decline.19

In New Zealand, cities in the Auckland metropolitan area all had above average growth rates compared to the rest of the nation: Manukau and Waitakere grew slightly more than 2 per cent per year, and the cities of North Shore and Auckland grew slightly less than 2 per cent annually from 1991 to 2001. High population growth in the Auckland area – the commercial heart of the country – is reflected in various economic indicators: approximately 73 per cent of New Zealand's imports and 40 per cent of its exports pass through Auckland's ports, and 96 of the top 200 business are located in the region.²⁰ On the other side of the spectrum are cities such as Dunedin, the main urban centre in the Otago region on the South Island, which experienced a population decline between 1996 and 2001, largely due to rising unemployment.²¹

Urban Change in Developing Countries

In the last two decades, the urban population of the developing world has grown by an average of 3 million people per week. By the middle of the 21st century, the total urban population of the developing world will more than double, increasing from 2.3 billion in 2005 to 5.3 billion in 2050. By 2050, Asia will host 63 per cent of the global urban population, or 3.3 billion people; Africa will have an urban population of 1.2 billion, or nearly a quarter of the world's urban population. Altogether, 95 per cent of the world's urban population growth over the next four decades will be absorbed by cities in developing countries.

Since 1950, 30 cities grew more than twenty fold and dozens of major cities, including Kuwait City in Kuwait and Tuxtla Gutierrez in Mexico have grown more than tenfold; some, including Abidjan in Côte d'Ivoire, have expanded their populations by more than twenty times in the last 50 years. These changes reflect major shifts in economic activities and employment structures from agriculture to industry and services, and a diversification of the economy of developing countries.²²



Calgary business district: Many Canadian cities are experiencing population decline in their inner cores, while their suburbs are expanding in size and population. ©iStockphoto

Although city growth is slowing down in most of the developing world, levels of urbanization within countries are expected to rise, with the least urbanized countries in Africa and Asia achieving an urban transition before 2050. On average, cities of the developing world grew at an estimated annual rate of 2.5 per cent from 1990 to 2000. At this rate, the developing world's urban population will double in 29 years. Some cities are growing faster than others: the populations of 218 cities, including Shanghai, Beijing, Riyadh, Addis Ababa, Nairobi, Lagos, and Khartoum, grew at a very high rate of 4 per cent or more in the 1990s. The exceptionally high population growth rates of some cities in the developing world imply that a city such as Dhaka, the capital of Bangladesh, will take just 12 years to absorb an additional 8 million inhabitants, a feat that took New York City - the world's largest metropolis in 1950 - nearly 150 years.²³

Large cities in the developing world, with populations of more than 5 million people, on the other hand, did not experience such high growth rates in the 1990s; the average annual growth rate of large cities was 1.8 per cent, with the exception of those in China, which grew at the phenomenally high rate of approximately 4 per cent per year. (Figure 1.2.2) Much of the growth observed in Chinese cities such as Beijing and Shanghai between 1982 and 1998 can be attributed to the expansion of city borders to include populations that lived on the periphery.²⁴ Chinese cities grew rapidly in the 1990s, and by 2005, 40 per cent of the country's population was classified as urban.

Over the next 10 years, the urban population in many developing countries is expected to grow at an average annual rate of slightly more than 2 per cent, down from 3.8 per cent during the 1980s and 4 per cent during the 1950s and early 1960s.²⁵ This suggests an inverse relationship between levels of urbanization and urban growth rates.

FIGURE 1.2.3: ANNUAL GROWTH RATE OF THE WORLD'S CITIES BY REGION AND CITY SIZE, 1990-2000

Urban growth rates vary not only within regions and countries, but also among cities. Only a fraction of 1,408 cities sampled (2 per cent) grew at more than 10 per cent annually from 1990 to 2000. More than one half of the cities grew at very high growth rate of more than 4 per cent a year or high growth rate of between 2 and 4 per cent a year. One third of the cities grew at the moderate rate of 1 to 2 per cent or slow rate of 0 to 1 per cent. Ten per cent of the cities experienced negative growth rates or declining populations.

It may seem paradoxical that regions experiencing high urban growth also have cities with declining populations, but the growth of some cities and contraction of others signals the start of a new urban cycle in the developing world that may lead to closer alignment with trends in developed regions. Out of a sample of 1,408 cities in the developing world, 143 experienced the collective loss of 13 million people from 1990 to 2000. As in Europe and the rest of the developed world, the developing world may experience urban saturation levels, which could lead to slower growth rates.²⁶ It is still too early, however, to know whether urban contraction will continue and become more pronounced, as the number of cities growing rapidly or moderately far outweighs the number of cities experiencing population decrease; the latter represent just 5 per cent of the total urban population of the developing world.

The most interesting aspect of urban growth in the developing world is not one that has much to do with city size or growth rates, as is commonly believed – though both happen on a greater order of magnitude in the developing world than in the developed world. The real story is the absolute size of the increments of growth, especially in Asia and Africa, and the role that different cities play in this growth.²⁷ The timing and scope of these changes vary considerably among less-developed regions.



Source: UN-HABITAT Global Urban Observatory, 2008.

Note: UN-HABITAT calculations based on UN Statistics Division, Demographic Year books (1985 - 2004), various years, and UN Population Division, World Urbanization Prospects, 2005 revision. Analysis based on a sample of 2,695 cities with populations of more than 100,000.



Downtown Nairobi: Urban primacy characterizes urban growth in most African countries. ©Peter Miller/iStockphoto

Africa

The rate of change of the urban population in Africa is the highest in the world. Despite some signs that urban growth is slowing down, the potential for further urbanization is still huge: the region is in the early stages of its urban transition, with an estimated 38 per cent of its population classified as urban; urban growth rates in Africa are the highest in the world (3.3 per cent per year between 2000 and 2005) and are expected to remain relatively high; and fertility rates in 2007 were still high (4.7 per cent) compared to the global average

(2.5 per cent).²⁸ The region is thus expected to sustain the highest rate of urban growth in the world for several decades, with underlying rates of natural increase playing an important role.²⁹ (These city population statistics are based on estimates and projections in the absence of recent census data in some countries.)

The region's most distinguishing urban characteristic is the presence of high concentrations of people and investments in the single largest city of its countries, in most cases, the capital.



FIGURE 1.2.4: CITY GROWTH AND DECLINE BY CITY SIZE IN THE DEVELOPING WORLD, 1990-2000

Source: UN-HABITAT Global Urban Observatory, 2008.

Note: UN-HABITAT calculations based on UN Demographic Yearbooks (various years between 1985 and 2004) Analysis based on a sample of 1,408 cities with populations of more than 100,000. This phenomenon, known as "urban primacy", characterizes urbanization in Africa today, as it did in Latin America and the Caribbean in past decades. By 1990, approximately half of the 54 countries in Africa concentrated more than 10 per cent of their urban populations in one single primate city.³⁰ More than half of Africa's urban population lives in big cities with populations of between 1 and 5 million, compared to 26 per cent in Latin America and the Caribbean and 38 per cent in Asia. Between 1990 and 2000, big cities in Africa, including Nairobi, Addis Ababa and Dakar, experienced the fastest annual growth rates among all cities of this size in the developing world, averaging 3.3 per cent, versus an average of 2.5 per cent for the developing world as a whole.³¹ Today, the region has 17 of the word's 100 fastest growing cities with populations of more than 1 million.³² Concomitantly, Africa has a preponderance of smaller cities of fewer than 100,000 inhabitants, meaning that for every big city there exists a multitude of small towns.

In the 1990s, small African cities (with populations of between 100,000 and 500,000) recorded the fastest growth rates (4.16 per cent per year) of all cities in the developing world, followed by Asian small cities (3 per cent).³³

Urban growth in Africa is a consequence of many factors, including positive factors such as economic growth and negative events such as conflict and disaster. Forced movements of people provoked by drought, famine, ethnic conflicts, civil strife, and war have driven much of the urban growth in the region. Luanda and other important provincial centres of Angola experienced an influx of more than 2 million people in only two years (1992-1994) as a consequence of the armed conflict in that country.³⁴ Civil conflict also drove the population of Khartoum, Sudan, up from 2.3 million in 1990 to 3.9 million in 2000, and Monrovia, the capital of Liberia, grew from 535,000 inhabitants to 776,000 inhabitants in the same period. The population of the capital of the Democratic Republic of the Congo, Kinshasa, also grew from 3.6 million

to 5 million from 1990 to 2000 for similar reasons. Other war-torn countries, such as Somalia, have also witnessed an increase in their urban populations for similar reasons.

The HIV/AIDS epidemic has also impacted urban growth in various countries. In southern Africa, the sub-region with the highest prevalence of the disease, life expectancy has fallen from an estimated 62 years in 1990 to 49 years in 2005. As a consequence, the growth rate of the population in southern Africa has fallen, from 2.5 per cent annually in the period between 1990 and 2005 to 0.6 per cent annually from 2005 to 2010; it is expected to continue declining in the foreseeable future.35 In Zambia, for instance, the population of the capital Lusaka has increased by only 0.7 per cent annually from 1990 to 2000, a trend that is prevalent throughout the country's urban centres; the populations of the Zambian cities of Luanshya, Ndola and Mufulira have actually experienced a decline in population in recent years. How much of this decline is directly attributable to the HIV/AIDS pandemic is not clear, but the high prevalence of the disease in the country's urban areas is significant enough to have made an impact on population growth rates. In fact, in Zambia, HIV prevalence among urban populations is twice that of rural populations - a trend that is common in many sub-Saharan African countries, including Tanzania and Burundi.36

Africa has been said to have urbanized in the absence of a stable economic basis to sustain its growth. Economic development has recently, however, shown encouraging progress around the continent, particularly in sub-Saharan Africa. Growth has been more resilient in sub-Saharan Africa than in most other parts of the world during the recent global economic downturns, with real gross domestic product (GDP) increasing by more than 3 per cent per year between 2001 and 2003.³⁷ Recent World Bank reports indicate that 16 countries in the region experienced economic growth rates of 4.5 per cent per year in the last decade and that economic growth in the region as a whole averaged 5.3 per cent in 2006.³⁸ Yet,



FIGURE 1.2.5: DISTRIBUTION OF URBAN POPULATION IN THE DEVELOPING WORLD BY CITY SIZE, 2000

Source: UN-HABITAT Global Urban Observatory, 2008.

Note: UN-HABITAT Global Urban Observatory, 2008. Data from UN-Statistics Division, Demographic Yearbook (various years), UN Population Division, World Urbanization Prospects 2005. Analysis based on a sample of 1,408 cities. Data for Asia includes China and India. Data only includes cities with populations of 100,000 + inhabitants.

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these achievements are rather fragile, and economic growth in Africa remains below potential. Even growing at 3 per cent per year, it would take more than 50 years for countries in this region to reach the average income levels other developing nations have already achieved.

Poverty lies at the heart of Africa's problems. Most countries in sub-Saharan Africa are in the world's lowest income category as measured by gross national income per capita per year (less than US \$765).39 It is possible that regional and domestic turmoil, weak governance, inappropriate policies, rampant corruption, and insufficient pro-poor structural reforms will make it difficult to ensure steady growth with poverty reduction. Urbanization in Africa will continue to be strongly associated with slum formation, as indicated by urban growth trends: between 1990 and 2000, slum areas grew at a rate of 4.53 per cent, while overall urban growth rates were 4.58 per cent in the same time period.⁴⁰ In this context of sharp contrasts between the haves and the havenots, where inequality in access to resources dominates urban development patterns, it is unlikely that cities in the region will develop harmoniously. This also means that much of the growth of populations in African cities will be associated with growth in the size of their slum populations.

Asia

Asia is urbanizing rapidly, with approximately 40 per cent of its inhabitants now living in urban areas. The region is expected to experience significantly high rates of urbanization over the next 20 years; projections indicate that one out of every two Asians will live in cities sometime before the year 2025.

Although the annual urban growth rate for Asia as a whole has been declining, from 3.8 per cent in the 1960s to 2.6 per cent today, the region will continue to host the largest urban population in the world in the coming years. Asia's urban population increased from approximately 234 million in 1950, to 575 million in 1975, 1 billion in the early 1990s, and 1.5 billion today.⁴¹ Of the 76 million persons added annually to the world population between 2000 and 2005, approximately 46 million (60 per cent) were in Asia, with 8 million in China and 16 million in India alone.⁴² An additional 1.25 billion people will be added to the Asian population by 2030, 54 per cent of whom will live in urban areas.⁴³

Asia is such a vast heterogeneous region that it defies generalization: the continent is home to some of the world's largest and richest economies and some of its poorest. Despite impressive reductions in family size and high prevalence of contraceptive use, progress in bringing down growth rates and fertility levels has been uneven.

In both South and Central Asia, population growth rates remain high, at about 2 per cent per year.⁴⁴ In East Asia as a whole, fertility levels appear to have dropped roughly to the replacement level (1.9 children per woman of child-bearing age), a breathtaking transformation in childbearing patterns in just four decades.⁴⁵ In Western Asia, population growth rates remain high, at 4.1 children per woman.⁴⁶ These demographic trends, however, only partially explain urban growth rates. In various East Asian countries (including China) population growth rates are declining, yet urban growth rates remain relatively high (2.5 per cent per year). In China alone, the average annual urban growth rate is even higher (2.7 per cent per year). Furthermore, many cities in China are growing at staggeringly high growth rates of more than 10 per cent per year, including Chongqing, Xiamen and Shenzhen. This can be attributed to a variety of factors, including the adoption of a pro-urban approach to economic development by the government of China, shifting from a state-directed process under a planned economy to a state-guided process within a market system; administrative reclassification of predominantly rural settlements as cities; and in-migration. Together, these processes have opened doors for city growth in the eastern coastal part of the country and have dramatically transformed the urban and regional landscape of the system of cities in the country.47



Skyscraper in Shenzhen, China's youngest and fastest growing metropolis © Liugen Cheng/iStockphoto



A housing complex in Delhi, India. ©Maciej Dakowicz

Metropolitan growth: a prominent feature of Asian cities

The majority of the largest cities in the developing world are located in Asia. In 2000, the region contained 227 cities with 1 million or more residents and 21 cities with 5 million or more inhabitants. Of every 10 big or large cities from the global South, more than 7 are located in Asia. Moreover, of the 100 fastest growing cities with populations of more than 1 million inhabitants in the world, 66 are in Asia. Among these fastest growing cities, 33 are Chinese. In fact, China hosts half of the urban population of the developing world that lives in big cities. The potential of urban growth of large Chinese cities is tremendous: on average, they grew at the rate of 3.9 per cent each year from 1990 to 2000 – more than two times faster than the world's average.

In sharp contrast, India's large cities are a surprising minority, representing only 10 per cent of all Asian cities of this size. Big Indian cities (those with populations of between 1 and 5 million) are growing fast (at the rate of 2.5 per cent annually), however, since the 1980s, their pace of growth has slowed slightly.⁴⁸ In fact, the six largest metropolitan areas in the country have shown a decline in their growth rates, while secondary metropolitan areas such as Indore, Kanpur, Jaipur,

Patna, Pune, and Surat have maintained their fast pace of urban growth.

The slowing down of growth in large cities in India could be explained by the "doughnut effect", whereby the inner city grows at a slower pace than the surrounding metropolitan areas. For example, the growth rate of the city of Mumbai was 1.5 per cent annually from 1991 to 2001, but the brand new satellite city of Navi Mumbai grew at the rate of 6.9 per cent annually. A survey released in the year 2000 revealed that 43 per cent of the families currently settled in Navi Mumbai migrated from Mumbai and that the percentage of migrants has most likely gone up since then because of improved mass transport links with the main city, as well as improvements in infrastructure.⁴⁹ Similarly, while India's capital city, New Delhi (not including the whole metropolitan area), experienced negative population growth (-0.2 per cent annually) between 1991 and 2001, the neighbouring city of Noida grew at the rate of 5.8 per cent per year. Other ring towns forming part of the Delhi metropolitan region, such as Ghaziabad, Loni, Gurgaon, Bahadurgarh, and Faridabad, have also been experiencing high growth rates in the past two decades. This

indicates a growing trend among Indian metropolitan areas in which populations are moving to suburban locations or satellite towns as commuter networks improve. The development of second-tier metropolitan cities is a response to the improved economies of Indian cities and increasing congestion in the primary metropolitan areas.⁵⁰

Countering metropolitan growth by unleashing the potential of intermediate cities

A distinct characteristic of urbanization in Asia is that with varying degrees of success or failure – and quite often total failure or limited impact – intermediate cities (with populations of between 500,000 and 1 million) have been used as mechanisms of population redistribution and regional development to slow down metropolitan growth. Government officials often assumed that development of intermediate cities would stimulate rural economies by providing linkages between rural and urban areas and that they would increase rural employment and incomes as a way to provide economic opportunities to neglected or impoverished areas. The planning of intermediate cities has often served to promote spatial integration via a more dispersed population.

Although a relatively small share (18 per cent) of its population lives in intermediate-sized cities, India's urbanization is being fueled by the growth of cities in the intermediate range. This is a distinctive pattern of urban growth in the country. A large share of India's population lives in small cities - 39 per cent, compared to 12 per cent in China and 18 per cent in the rest of Asia. The country's small cities may be experiencing a level of saturation, as their growth has begun to slow significantly. From 1991 to 2001, 41 per cent of India's small cities experienced a moderate or slow growth rate, and 7 per cent experienced a decline in population. This pattern of slow or no growth in the 1990s may indicate that Indians from large and small cities are migrating to intermediate cities for better opportunities. These findings run counter the conventional assumption that all Indian cities are growing rapidly, a pattern that is noticeable in intermediate and big cities.

In countries in which urban primacy is the rule, such as the Philippines, Thailand, the Republic of Korea, and Indonesia, the role of intermediate cities has been to gradually redirect the flow of migrants away from the primate city. In the more industrialized nations, such as the Republic of Korea, medium-sized cities are viewed as instruments for bringing about a more balanced distribution of population and the amelioration of income inequalities within and between subnational regions. In the less industrialized nations, such as Indonesia and the Philippines, intermediate cities have been perceived as a bridge, promoting the growth of rural industries based on the processing of farm products for export.⁵¹

In sharp contrast, population growth in China is now taking place in the two extreme poles: small and large cities, which are experiencing the fastest annual growth rates in the country (3.47 per cent and 3.89 per cent, respectively). The country's efforts to sustain the population growth of medium-sized cities and to settle "floating populations" through the

reform of the household registration (*Hukou*) system have not yielded the expected results.⁵²

Asia's economic growth in the last two decades has been phenomenal. The region now constitutes one-third of the world's economy. Its economic dynamism has contributed to the reduction of income poverty⁵³ and also to the expansion of cities and towns. Of the 140 new big and large cities that emerged in the world after 1990, 111 were located in Asia. This trend is not consistent across the continent. On the one hand, the emerging economies of India and China are likely to represent 50 per cent of global GDP in the next decade. On the other hand, the region is also home to the majority of the world's most impoverished people.54 In Southern Asia and Western Asia, urban growth over the last 15 years has been accompanied by a commensurate growth in slums. In both sub-regions, annual slum and urban growth rates are quite similar (2.2 and 2.9 per cent in Southern Asia, and 2.7 and 2.96 per cent in Western Asia from 1990 to 2000).⁵⁵ Disparities in Asia are not only between sub-regions and countries, but also among and within human settlements of growing economies. Some urban areas are expanding and have become economic powerhouses; other areas, often less dynamic cities or remote rural areas, are lagging behind.⁵⁶ Even China – the GDP of which is growing at the dazzling rate of 9.5 per cent annually, and which accounts for 75 per cent of global poverty reduction - recognizes that "GDP growth does not necessarily indicate corresponding social development... and economic growth is achieved at the expense of social harmony".⁵⁷ While the balance between urban growth and social and economic development in various Asian countries seems elusive to achieve in the short- or mid-term, it is conceivable that policy change can usher in such harmony in the foreseeable future. Achieving harmonious cities depends largely on how well and how fast countries are able to achieve this balance.

Latin America and the Caribbean

Latin America and the Caribbean is the most urbanized region in the developing world, with 77 per cent of its population living in urban areas. The region will continue urbanizing over the next two decades, when the proportion of the urban population will reach 85 per cent. Urban growth in this region started in the early 1940s and reached its peak during the 1960s, at 4.6 per cent per year. Urban growth began to slow down in the 1980s, declining to 3.0 per cent per year, and reduced even further, to 1.7 per cent per year in 2005. Urban growth in the region took place despite economic instability, social and institutional crises and clear anti-urban policies.⁵⁸

The slowing of urban growth in Latin America and the Caribbean is concomitant with declining population growth rates, which have fallen consistently over the last three decades. Although countries in the region span all stages of the demographic transition,⁵⁹ most of the region's population is contracting; the mean number of children born to women has fallen from 6 to 3,⁶⁰ average life expectancy is comparable

to that of North America, and infant mortality is the lowest among developing regions. On the other hand, income and consumption inequalities in the region are the highest in the world, and there are expanding pockets of poverty in nearly every Latin American country.

Urban development in Latin America and the Caribbean has been characterized by a high degree of urban primacy, with a large proportion of the urban population residing in the largest cities. In 2000, one-fifth of the region's total urban population lived in large cities of 5 million people or more, most of which were national capitals (compared with 18 per cent in Asia or 15 per cent in Africa). Moreover, among the 14 most populated urban agglomerations in the world, four are located in this region (São Paulo, Mexico City, Buenos Aires, and Rio de Janeiro).

While large cities are home to most of the population of the region, they are no longer growing rapidly. In fact, all of the large cities in Latin America and the Caribbean have shown a steady trend of slow growth, and projections indicate that by 2015 they will experience growth rates of less than 0.8 per cent annually.

Perhaps one of the most distinctive features of urbanization in the region is the growth of small cities (with between 100,000 and 500,000 inhabitants). Small cities not only experienced the fastest urban growth in the region (2.6 per cent per year), but also were home to nearly half of all new urban residents from 1990 to 2000. Small cities such as Barcelona in Venezuela and Itaquaquecetuba in Brazil experienced growth rates in excess of 10 per cent per year in the 1990s. Today, small cities are home to a greater proportion of the population of Latin America and the Caribbean than any other region in the developing world (39 per cent, compared to 18 per cent in Asia and 16 per cent in Africa).

The progressive reduction of the share of the population living in Latin America's primate cities is likely an outgrowth of the expansion of small urban centres and the relative growth of big cities. Indeed, even if big cities (with populations of between 1 and 5 million) are not growing as fast as in previous years, when rates of more than 4 per cent per year were common, they are still experiencing significant growth, with more than 40 per cent growing at a rate of 2 to 4 per cent per year. Many big cities are playing active roles as core urban centres, promoting socio-economic development through the accumulation of population and technology, economies of scale and improved infrastructure. Small cities, in turn, are diversifying the urban system in the region, growing as an alternative to the social and environmental consequences of excessive concentration and physical congestion of primate cities, and offering new opportunities for economic development.

The growth and concentration of populations in small and big cities, and population decline in large agglomerations, has generated self-limiting mechanisms of urban growth in the region as it has transitioned away from urban primacy. These self-limiting mechanisms may have been induced by decentralization policies, regional planning programmes, industrial delocalization strategies, and governmental actions channeling investments to specific regions and cities. The consensus among scholars, however, is that regional planning efforts in Latin America and the Caribbean region have not been a great success. With the exception of a few countries and programmes - Mexico's deconcentration of its system of cities; the "Marcha hacia el Este" in Paraguay and Bolivia that reoriented migratory flows towards Santa Cruz and Ciudad del Este; and Cuba's decentralization policies that reduced growth in the capital, Havana - government interventions have not



Teenagers playing street soccer in Mexico City: A large proportion of the urban population in Latin America resides in large cities. ©Milan Klusacek/iStockphoto

managed to reorient growth to secondary cities. Governments and programmes have also not succeeded, for the most part, in stimulating growth in poor regions, or helping the poor, even in regions in which economic growth has occurred.

In Latin America and the Caribbean, per capita GDP grew on average by 1.1 per cent per year in the 1990s and by a mere 0.7 per cent per year in the four years from 2000 to 2004. Since the beginning of the 21st century, poverty levels in absolute terms have increased, particularly in urban areas, revealing a lack of improvement in the living conditions of the population at large.⁶¹ Clearly, the region's economic growth and social development have not happened as expected, at least in the last 10 years. Slum growth and slum prevalence declined in some countries in the late 1980s and 1990s, when the process of re-democratization resulted in the adoption of progressive policies aimed at promoting more inclusive governance and reducing inequalities. However, one consistent factor in the region's tumultuous economic and political history is the persistence of mass poverty in the face of enormous wealth. The region continues to have the greatest income inequality in the world,⁶² which hampers its potential to achieve harmonious urban development.

NOTES

- ¹ UNFPA, 2007, p. 1. Earlier UN estimates indicated that this urban transition would occur in 2007.
- ² UN Population Division, 2007.
- ³ This growth rate considers cities with more than 100,000 inhabitants in the period 1990-2000. Urban growth of the total urban population has been estimated at 2.67 per cent for the developing world and 0.54 per cent for the developed world for the years 2000-2005.
- ⁴ U.N. Department of Economic and Social Affairs Population Division, 2007.
- ⁵ U.N. Department of Economic and Social Affairs Population Division, 2007.
- ⁶ Metropolitan areas with populations between 2 and 5 million contained 14 per cent of the population. Cities with populations between 1 and 2 million contained 13 per cent, and those with populations between 250,000 and 1 million and less than 250,000 contained 16 and 7 per cent, respectively. United Nations Census Bureau, 2007.
- ⁷ The Commonwealth of Independent States (CIS) consists of 11 former Soviet Republics: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikstan, Ukraine and Uzbekistan.
- ⁸ Satterthwaite, 2007.
- ⁹ Lupton & Power, 2004.
- ¹⁰ European Commission, 2007.
- ¹¹ United States Census Bureau, 2007.
- ¹² Population growth varied significantly by region in the 1990s, with higher rates in the west (19.7 per cent) and south (17.3 per cent) and much lower rates in the midwest (7.9 per cent) and northeast (5.5 per cent), U.S Census Bureau, 2007.
- ¹³ Innovations for an Urban World Summit, Bellagio Italy, July 2007.
- ¹⁴ Statistics Canada, 2007.
- ¹⁵ Ibid.
- ¹⁶ Statistics Canada, 2007.
- ¹⁷ Between 1986 and 1994, the population living in capital cities grew by 10 per cent, and since then the annual rate of growth has been decreasing. Australian Bureau of Statistics, 1996.
- 18 Martinez-Fernandez & Wu, 2007.
- ¹⁹ Australian Bureau of Statistics, 1996.
- ²⁰ Statistics New Zealand, 1999a.
- ²¹ Statistics New Zealand, 1999b.
- ²² Satterthwaite, 2007.
- 23 Kasarda & Crenshaw, 1991, p. 467-501.
- ²⁴ Municipality of Shanghai, n.d.
- ²⁵ UN DESA, 2007.
- ²⁶ The trend of urban population decrease is well known and largely associated with cities in the western world, especially in Europe and some parts of North America, where the number of shrinking cities has increased faster in the last 50 years than the numbers of expanding ones.
- 27 UNFPA, 2007, p. 8.
- ²⁸ In some parts of sub-Saharan Africa, fertility rates are even higher. Central Africa, for instance, had a fertility rate of 6.1 in 2007.
- ²⁹ UNFPA, 2007, p. 11.
- ³⁰ UN-HABITAT, in press.
- ³¹ The average growth rate for cities in the developing world is 2.58 per cent.
- ³² The fastest growth observed during the years 1990 to 2000. Refer to database used by UN-HABITAT in this Report. In the study, "The Transition

to a Predominantly Urban World and Its Underpinnings", David Satterthwaite indicates that Africa has 25 such cities, considering a longer period starting in 1950.

- ³³ Interestingly, around 10 per cent of small cities in the region experienced a population loss.
- ³⁴ OCHA, 2003.
- 35 UN DESA, 2007.
- ³⁶ Demographic and Health Surveys, various years between 2000 and 2004.
- ³⁷ This growth is important if compared with about 1.5 per cent in the advanced economies. Only countries in Asia and countries in transition grew faster than SSA. BBC News, n.d.
- ³⁸ BBC News, n.d.
- ³⁹ World Bank, 2003
- 40 UN-HABITAT, 2006a.
- 41 UN DESA, 2007.
- ⁴² Ibid. UN-HABITAT estimations, 2007.
- 43 Cohen, 2004.
- 44 UNFPA, n.d.
- ⁴⁵ Eberstadt, 1998.
- ⁴⁶ United Nations Economic and Social Council, 1997.
- 47 Zhu, 2006.
- ⁴⁸ The growth rate of big and large Indian cities declined from 36 per cent during the years 1981-1991 to 34 per cent in the next decade. Cited in Bhagat, 2005.
- ⁴⁹ Survey done by the Tata Institute of Social Sciences in 2000.
- ⁵⁰ Bangalore is the only big metropolitan area with positive growth rates. Secondary metro cities are Pune, Surat, Patna, Kanpur, Jaipur, and Indore. Congested primary cities are Mumbai, Chennai, Kolkota and Delhi. Cited in Bhagat, 2005.
- ⁵¹ This rural-based development strategy is designed to provide nonagricultural employment and thus prevent a mass migration to primate and regional cities already undersupplied with essential services. Asian Urban Center of Kobe, 1987.
- 52 Wang, 2003.
- ⁵³ The percentage of people living on less than one dollar a day declined from 35 per cent in 1990 to about 20 per cent in 2003. ADB, DFID and World Bank, 2006.
- ⁵⁴ ADB, DFID and World Bank, 2006.
- 55 UN-HABITAT, 2006a, p. 20.
- 56 Blair, 2006.
- ⁵⁷ Government of China, 11th Five-Year Plan period (2006-2010).
- ⁵⁸ Rodriguez, 2007. In only 50 years, the percentage of the total population living in urban areas rose from 42 per cent in 1950 to 75 per cent in 2000.
- ⁵⁹ Bolivia and Haiti: incipient transition. El Salvador, Guatemala, Honduras, Nicaragua, and Paraguay: moderate transition. Brazil, Colombia, Costa Rica, Ecuador, Mexico, Panama, Peru, the Dominican Republic, and Venezuela: transition in progress. Cuba, Argentina, Chile, and Uruguay: advanced transition.
- 60 ECLAC, UNFPA, PAHO, 1999.
- ⁶¹ The number of poor grew by 3 million persons between 1990 and 2001, about 7 million in 2000-2001, and 17 million in 2002. ECLAC, 2002.
- 62 Cohen, 2004.