1.3 Which Cities are Growing and Why

Urban growth is a result of a combination of factors: geographical location, natural population growth, rural-to-urban migration, infrastructure development, government policies, corporate strategies, and other major political and economic forces, including globalization.[1] In some regions, such as Latin America, urban growth is, in fact, largely a result of urban-to-urban migration. And in many Asian countries, including China, national economic policies often play a significant role in determining which cities will grow in size and importance.

Demographic factors

Contrary to common perception, migration from rural to urban areas is no longer the dominant determinant of urban growth in developing countries. In demographic terms, the main cause of urban growth in most countries is natural increase – when births in cities outpace deaths. United Nations estimates indicate that natural increase accounts for some 60 per cent of urban growth.[2] Several demographic dynamics interact in most cities to influence growth or contraction. In Iran, for instance, the population of urban areas has increased over the past five decades as a result of both high natural population growth rates and rapid rural-urban migration. In contrast, cities in the State of Kerala in India experienced a decline in population over the past 50 years, as Keralites migrated to other states and literacy rates among women increased, impacting fertility rates.[3] In Cuba, the country with the lowest birth rate in Latin America and the Caribbean, urban growth has leveled off as the population has aged. A country's demographic patterns are, therefore, an important determinant of urban growth. Yet, countries with similar demographic patterns may experience different patterns of urban change, with some cities growing faster than others.

Demographic determinants that account for the remaining 40 per cent of urban growth are migration, both intra-national (rural to urban and urban to urban) and international, and the transformation of rural settlements into urban places, a process known as "reclassification". Overall, for every 60 million new urban dwellers added every year to the cities of the global South, approximately 36 million are born there, 12 million migrate in and the remaining 12 million become urban residents by virtue of the reclassification of their rural lands to urban areas.

These demographic factors are influenced by a country's stage of development and its level of urbanization. In countries with low levels of urbanization, migration is often the primary engine driving city growth, as is the case in various countries in Africa and Asia. For instance, the net migration rate into Ho Chi Minh City in Viet Nam was twice that of the natural increase rate between 1999 and 2004.[4] Studies have also shown that more than 60 per cent of population increase in Dhaka, Bangladesh, is due to in-migration.[5] But even in such a case, immigration is driven by industrial policies that centre development in the capital city.

As the urban base grows, the patterns reverse, with natural increase becoming responsible for a higher proportion of urban growth.[6] For instance, in Latin America and the Caribbean, where almost 80 per cent of the population lives in cities, natural growth accounted for more than 60 per cent of urban growth in 2005, despite steep declines in fertility rates, while migration accounted for less than 20 per cent of urban growth that year. In countries with youthful populations, natural increase is a big contributor to urban growth. In India, for instance, where 35 per cent of the population is under 15 years old, natural increase accounted for 56 per cent of urban growth in 2001, while net migration accounted for 23 per cent.[7]

In contrast, in China, where two-fifths of the population is urban and fertility rates are extremely low (an outcome of the one-child policy),[8] rural-to-urban migration was the main cause of population growth, accounting for 55 per cent of growth in 1990, while natural increase accounted for only 23 per cent of growth. In Shanghai – and possibly in other major Chinese cities – natural increase has played a limited role in urban growth since then. Of the 16.4 million people counted in the 2000 population census for Shanghai, 5.5 million were migrants.[9]

In many countries, the largest movements of population are taking place between cities and not from rural to urban areas. In Latin America and the Caribbean, half of all migrations originate and end in cities.[10] In São Paulo, for instance, one-third of all urban growth can be attributed to urban-to- urban

Economic policies and migration: The case of Dhaka

The domestic economy of Bangladesh is characterized largely by low technology endowments and dominance in trade and services in the absence of significant natural resource assets. Problems of low economic growth, low savings and investments, mounting foreign debts and fiscal and current account deficits and rising inflation characterize the microeconomic climate. The country's traditional dependence on agriculture and its low level of industrial development due to lack of human resources and scientific and technological infrastructure has meant that most of the economy has relied on the agricultural sector for job creation.

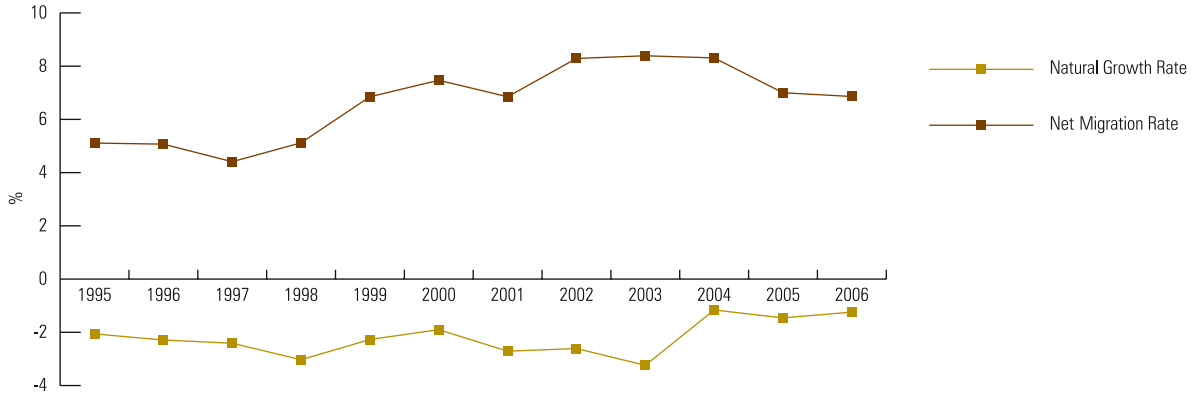
The inability of the low-tech, low-output agriculture sector to cater to this led to the adoption of liberal economic policies in an effort to alleviate poverty, and an increased emphasis on labour-intensive manufacturing industries and agro-based industrial production. The Industrial Development Policy of 1999 has been the most consequential economic policy in the country that promotes export-oriented industrialization and led to growth in three sectors: ready-made garments; food processing and pharmaceutical production.

Employment in the garments sector, which concentrated in and around the capital city Dhaka, was preferred by women who either worked in the informal sector, or who had to deal with the vagaries of agricultural production as a result of extreme weather. Employment of women and men in this sector and others has been the main driving force for the massive rural-to-urban migration witnessed in Bangladesh in the last two decades. However, lack of appropriate city planning, redistributive mechanisms and protective labour laws have increased the vulnerability of the poorest groups in the city and led to increasing social divisions.

▲ A labourer in Dhaka: Urban growth in Bangladesh is driven by labour-intensive manufacturing industries that have intensified rural-to-urban migration.
©IRIN

Sources: Hossain & Karunarathne 2004; Gehl Sampath 2007; UNCTAD 2007; UNIDO 2007.

FIGURE 1.3.1: **NET MIGRATION RATE AND NATURAL GROWTH RATE IN SHANGHAI, 1995 - 2006**



Source: Data from Shanghai Municipal Statistics Bureau, Shanghai Statistical Yearbook 2007.
Note: Net migration rate = in-migration rate minus out-migration rate.
Natural growth rate = birth rate minus death rate.

migrations. Urban-to-urban migration is also becoming more common in African cities. In South Africa, approximately 3 million urban residents have migrated from one district or metropolitan municipality to another in the last five years.[11]

Urban primacy

A common historic pattern observed in virtually all developing countries is urban primacy: the concentration of a significant proportion of the national urban population, and the control of flows of capital, financial transactions, industrial production, national revenue, and other similar indicators in one city. This typically happens at the early stages of a country's development. Cities such as Mogadishu in Somalia, Lomé in Togo, Phnom Penh in Cambodia, Ulaanbaatar in Mongolia, Kuwait City in Kuwait, Port-au-Prince in Haiti, Panama City in Panama, and San Juan in Puerto Rico were home to more than half of the total urban population of their respective countries in 2005. Other cities such as Dakar in Senegal, Ouagadougou in Burkina Faso, Kampala in Uganda, Tel-Aviv in Israel, Santiago in Chile, San José in Costa Rica and Montevideo in Uruguay hosted more than 40 per cent of their respective national urban populations in 2005. The demographic dominance of primate cities frequently results in economic, social, and political dominance over all other cities within an urban system. This was the case until recently in many Latin America and Caribbean cities that concentrated people, resources and investments.

Urban primacy is the norm in most developing countries that are in the early stages of the urban transition. But urban primacy is also bad for business – it distorts the economy, creates imbalances in the distribution of populations and resources and gives rise to different forms of socio-economic disarticulation.[12] All this, in turn, generates regional asymmetries in development and weak political integration, both of which place structural constraints on harmonious development.

However, from a more pragmatic viewpoint, based on historic evidence of urbanization patterns, it seems that the growth of primate cities has been a function of development that helped nations concentrate and maximize their limited financial and human resources more efficiently until a time when resources and growth allowed deconcentration and regional spread.[13] Primate cities, therefore, played – and are still playing – an important role as engines of national and regional economic development, institutional building, cultural progress and, in some countries, political integration by creating national centres of governance. This explains why in most countries primate cities are capital cities or state capitals.

Primate cities[14] altogether grew at the average rate of 3.11 per cent per year from 1990 to 2000, compared to an average of 2.5 per cent for all types of cities. The highest growth rates were recorded in African primate cities (3.65 per cent per year), including in Nairobi, Kenya; Niamey, Niger; Dar es Salaam, Tanzania; and Lomé, Togo, all of which grew at an annual rate of 4 per cent or more. Kigali, the capital of Rwanda, is the only primate city that experienced soaring annual population growth of 8.6 per cent from 2000 to 2005. Even if the growth of primate cities in Africa is slowing down, in general, most African countries are still dominated by a single city rather than a network of cities.

A street in Cairo: Investments in information technology have boosted urban growth in several cities.
©Madanmohan Rao

Asian primate cities are growing at the same pace as the developing world average (3.11 per cent per year), which is extremely high, considering that the average growth rate of Asian cities is 2.5 per cent annually. Cities such as Phonon Penh, Kathmandu, Dubai, Sana'a, and Dhaka grew at an annual rate of more than 4 per cent between 1990 and 2000. Dhaka, the capital of Bangladesh, is the fastest growing megacity in the world, with an annual growth rate of 4.4 per cent per year. In Latin America and the Caribbean, only two primate cities grew at a rate higher than 4 per cent: Port-au-Prince in Haiti and Asuncion in Paraguay. The overwhelming concentration of the population in one or two urban centres was a trend in this region from 1960 to 1980, but since then, the urban landscape has diversified.

In the second stage of the urban transition, as countries move from low to intermediate levels of development, the role of primate cities diminishes, or in some cases, starts to decline. Small and intermediate cities that were somehow overshadowed by the dynamism of the primate city start to emerge, diversifying the system of cities and reducing the attractiveness of the capital or primate city. This process can accelerate when new development priorities emerge, decentralization policies are put into practice, infrastructure is expanded to different regions, or different forms of globalization come into view in specific locations. The process can also be hastened by problems of governance or when primate cities generate significant negative externalities, such as high costs of living, transport and pollution problems, increased crime, and the like.

How governments are propelling urban growth

UN-HABITAT analysis of 245 cities that are experiencing the fastest growth in the developing world shows very clearly that spatial influences of macroeconomic and industrial policies and related investments (or economic development), are the main drivers of city growth in 78 per cent of the cities analyzed. Investments in transport infrastructure (roads, ports, airports) were by and large the most important contributor to city growth. Forty per cent of the cities analyzed experienced high growth rates as a direct result of the diversification, expansion or improvement of regional or urban transport infrastructure. The designation of regions or cities as special economic zones contributed to the rapid growth of one-fifth of these cities. The development of information and services-related sectors, such as banking and financial systems, including different forms of trade, was the third most important contributor to city growth, representing 16 per cent of the cities.

Crowd of people crossing the street at a busy intersection in Central District, Hong Kong
©Christine Gonsalves/iStockphoto

In a large number of these cities, economic policies and investments are mostly the result of national government decisions and allocations. The State, in its various institutional forms, exerts a critical influence in the growth of these cities. For instance, decisions to designate cities or regions as free trade areas or special economic zones are made at the central government level; likewise, the mobilization and allocation of huge public (and often private) investments for the construction of transport and communication infrastructure and the improvement of these services is usually a central government responsibility. This suggests that urban growth in many countries is initially driven by national governments, and then further propelled by local authorities and the private sector. In this scenario, central governments quite often determine which cities will benefit from investments and macroeconomic decisions.

National governments in a number of countries, including Thailand, the Philippines, South Korea, Mexico and Brazil, are concentrating more attention and resources on particular city-regions. Others, like Malaysia and China, are using cities to connect the nation to the global space of business flows, while concurrently using such cities to propel social change in particular directions. It is clear that the growth of the fastest cities in the developing world cannot be adequately understood without an examination of the matrices of state territorial organization within and through which it occurs.

This does not mean that local authorities are not playing an important role in economic and urban growth. Local authorities, in conjunction with political and economic local and regional elites, are transforming their cities into dynamic economic areas oriented towards global, regional and local growth sectors. Cities such as Salem, Pimpri, Chinchawad and Pune in India, Guadalajara and Ensenada in Mexico, Maracay in Venezuela, Cuenca in Ecuador and Zambaoanga in the Philippines, to name just a few cities, are all growing at the annual rate of 3 per cent or more by adopting pro-growth strategies through place marketing and promotion, focusing on high-potential economic sectors. Major urban centres in South Africa have also adopted different forms of economic development strategies as part of integrated development plans, which were implemented through local economic development units. As a consequence of this, economic growth in these cities was higher than population growth by slightly more than 1 percentage point over the 1996-2001 period.

The growth of cities through local initiatives reflects a rising trend towards greater urban entrepreneurialism and more intense city competition. However, many cities in the developing world, particularly in the small and intermediate ranks, do not have adequate financial and human resources to conceive and implement medium- and long-term development strategies. These cities, and many other large agglomerations, often compete with each other to gain recognition as important urban centres and to be included in regional and national development plans and strategies, which gives them the authority to be considered in the allocation of budgets and to be part of strategic alliances that combine private and public resources etc.

This articulation of local initiatives with central government economic and political decisions is bringing about changes in the governance paradigm in which the private sector is also involved in specific plans and funding. At the national or regional level, the central government decides on macroeconomic policies with clear spatial implications, implements institutional reforms and mobilizes huge domestic resources to support infrastructure and communication development. On their part local authorities design local development strategies or refashion their policies, programmes and projects in order to link up with wider initiatives that mobilize public and private investments at a larger scale.

However, while developing countries are using macro and microeconomic policies to jump-start economic development, they often lack the regulatory competence and strategic focus to enact policies for infrastructure and other public goods to promote regional balance. Moreover, there is a lack of policies and institutions that focus on more equitable distribution of the gains of economic development, not only between regions or cities, but within cities. Cities in countries that do relatively well to balance their needs and create spheres of harmony not only have strategic industrial and innovation policies that cater to the need for better infrastructure to achieve economies of scale; they also have the institutional mechanisms that distribute the gains of economic growth more evenly. Often, developing countries' focus on economic development is not accompanied by concomitant policies to improve the quality of rural life. This leads to a widening rural-urban divide in employment, schooling and medical services, among others, which fuels further migration to cities, and worsens the divide.

Analysis by UN-HABITAT Global Urban Observatory 2008. Data and other information on the 245 fastest growing cities derived from various sources, including Wai-Chung et al. 2004, South African Cities Network 2006 and Harvey 1989.

Cities in the developing world that are not primate cities showed quite diverse patterns of urban change from 1990 to 2000. While some grew very fast, at the annual rate of 10 per cent or more, the vast majority experienced an annual growth rate of between 2 and 4 per cent, and a considerable number grew at a moderate pace, while a relatively small number experienced population decline. This differentiated level of urban growth can be explained by the particular attributes that a city may have had in the past or that it has developed more recently: Cuautla in Mexico grew from a small market town to a city of more than 120,000 inhabitants because of tourism; Chungju in South Korea doubled in size with the establishment of the National University of Industry; the small city of Annaba in Algeria increased its population by more than 130,000 inhabitants as a result of the improvement of transport infrastructure; Cochabamba in Bolivia grew from 282,000 to 404,000 inhabitants between 1982 and 1989, as the area prospered from agricultural exports.

New drivers of growth

UN-HABITAT's analysis of the causes and effects of population growth in a sample of 245[15] of the fastest growing cities in the developing world (cities growing at an average annual growth rate of more than 2 per cent per year) between 1990 and 2000[16] shows that the driving forces behind urban growth are often complex and overlapping. However, the analysis led to the identification of the three most significant drivers of urban growth in Africa, Asia and Latin America and the Caribbean:

1. Economic and industrial policies (i.e., creation of special economic zones, industrialization and export promotion areas, etc.) and related strategic investments in two key areas – transport infrastructure and communications and trade service sectors;
2. Improvements in the quality of life in cities (basic services, transport, green areas, public amenities, etc.); and
3. Changes in the legal and/or administrative status of urban areas.

National economic policies and investments in infrastructure

Economic and industrial policies and related infrastructure investments play a critical role in determining which cities will grow and which will decline. UN-HABITAT analysis of 245 cities that are experiencing the fastest growth in the developing world shows very clearly that macroeconomic

TABLE 1.3.1: **DRIVERS OF GROWTH IN THE DEVELOPING WORLD'S FASTEST GROWING CITIES**

UN-HABITAT's State of the World's Cities report team adopted a range of research methods to estimate the new drivers of population growth in cities of the developing world. First, the team conducted a statistical analysis, based on data from the United Nations Demographic Yearbooks, to identify those cities experiencing very high urban growth rates. A maximum of 10 cities per country were selected taking into account different city-sizes. A conceptual framework for possible reasons of city growth was created and presented to an internal advisory group for revision/modification. Second, the team hired a number of international urban experts in different regions as research advisers. In the case of Asia, two additional experts were engaged at the country level, one for India and the other for China. The report team commissioned local experts to carry out fieldwork to identify the drivers of growth in selected cities using a combination of quantitative and qualitative research methods based on the agreed framework. Local experts were identified through the network of urban observatories (approximately 300 around the world), UN-HABITAT's programme managers in some 40 countries and well-known academics and practitioners. Qualitative analysis included focus group discussions and expert group meetings in selected cities. Quantitative analysis included an examination of changes in the city's labour force; variations in local economic product; changes in income and in investments in cities; and in - and out-migration. Third, local experts, supported by international urban experts and UN-HABITAT's Global Urban Observatory, determined the main reason driving population growth in these cities. When causality was not clear or when there were several factors contributing to growth or it was difficult to determine the main contributory factor, the city was eliminated from the list of cities analyzed. (The final list comprised 37 cities in Africa, 57 cities in Latin American and the Caribbean and 151 cities in Asia and the Pacific.) Fourth, the team validated the results of the analysis by undertaking further literature research of information published by national statistical offices, local authorities etc. and through consultations with experts at the UN Economic Commissions in the different regions. The resulting findings are preliminary and should be considered as a first step towards a more detailed qualitative and quantitative research analysis of the drivers of city growth in the developing world.

The preliminary results of the UN-HABITAT analysis are presented in the table below.

New driver of growth in the fastest cities of the developing world

	Africa		Latin America & Caribbean		Asia		Total	
Economic reasons (total)	29	78.4%	48	85.7%	113	74.3%	190	77.6%
Designation of economic zone	4	10.8%	12	21.4%	35	23.0%	51	20.8%
Investment in transport infrastructure	19	51.4%	14	25.0%	67	44.1%	100	40.8%
Information and services	6	16.2%	22	39.3%	11	7.2%	39	15.9%
Improvement in quality of life	8	21.6%	5	8.9%	12	7.9%	25	10.2%
Administrative change	0	0.0%	3	5.4%	27	17.8%	30	12.2%
Total	37	100.0%	56	100.0%	152	100.0%	245	100.0%

Source: UN-HABITAT Global Urban Observatory, 2008.

Bangkok's advanced transport infrastructure: In many Asian cities, investment in urban infrastructure has boosted urban growth.
©iStockphoto

policies and related investments, or economic development, were the main drivers of city growth in 78 per cent of the cities analyzed. More than half of the cities that grew because of economic reasons did so because of investment in transport infrastructure (roads, ports, airports, and the like). The designation of regions or cities as special economic zones contributed to the development of one-fifth of these cities. The development of information technology and financial services related sectors, such as banking and financial systems, including different forms of trade, was the third most important contributor to city growth, representing 16 per cent of cities that were driven by economic factors.

Cities that are oriented towards global or national growth sectors that specialize in industrial development, or are transport hubs and markets, are experiencing the fastest urban and economic growth. In general terms, these cities have more infrastructure investments, more robust labour markets, more employment opportunities and higher incomes than other cities. All of these factors make the fastest growing cities attractive to potential migrants in search of economic opportunities. The reasons for growth vary according to regions. While in Asia the designation of economic zones and investments in infrastructure appear to be the most important contributors to urban growth, in Latin America and the Caribbean, service sector development appears to play a larger role. In Africa, improvements in quality of life appear to be an important factor of city growth, particularly in the cities of North Africa.

The pathways of growth for cities driven by economic development are diverse: economic reforms that facilitate access to capital markets and foreign investment; political changes that make possible greater local fiscal autonomy and permit import and export licenses; government and corporate strategies that increase investments in strategic economic sectors; and national or local initiatives that position cities in global, regional or local spaces of economic flows.

The growth of these cities is not random; very often, they benefit from economic policies because of where they are located geographically. In modern economic urban growth analysis, geography continues to play a key role in determining the economic policies and related investments in cities. Proximity to various geographic features or political entities that facilitate trade often explains the rationale for deciding which city will benefit the most from economic policies and investments: proximity to coastlines and navigable rivers with the consequent reduction of transport costs[17]; proximity to major cities and important urban agglomerations; proximity to markets, infrastructure and transport systems; proximity to natural resources, including water, minerals, hydrocarbon deposits, and the like; and proximity to transnational borders.[18] For example, Gaborone, the capital of Botswana and one of Africa's fastest growing cities, has experienced an annual growth rate of 3.3 per cent as a result of its strategic location at the frontier of the South African border. This city is becoming a thriving financial, industrial, administrative and educational hub for the region, attracting investments and generating opportunities that are magnets for accelerated migration.[19] Many other cities across the developing world experienced important population growth by taking advantage of their strategic geographic location for trade activities: General Santos in the Philippines; Ensenada and Nuevo Laredo in Mexico; Barquisimeto, Ciudad Bolivar and Maracay in Venezuela; Teresina and Fortaleza in Brazil, to name just a few.

Geography is not the only deciding factor in the growth of such cities. A city that might have emerged because of geographic comparative advantages can continue to thrive as a result of agglomeration economies and good urban management. It is also possible to find cities that prosper and grow without a clear geographic advantage, mainly because of their capacity to develop self-organizing spatial patterns of development that are based on agglomeration effects and effective governance and urban management structures.

Construction cranes doing ground work for a light rail system in Shenzhen, a special economic zone in China.
©Hector Joseph Lumang/iStockphoto

Creation of special economic zones

In a number of rapidly growing cities, economic policies and investments grow primarily from national government decisions and allocations. The state, in its various institutional forms, exerts a critical influence on the growth of these cities. For instance, decisions to designate cities or regions as free trade areas or special economic zones are made at the central government level; likewise, the mobilization and allocation of huge public (and often private) investments for the construction of transport and communication infrastructure and the improvement of these services is often a central government responsibility.

The designation of special economic zones covers a wide range of economic activities, from custom-bonded warehouses, factories and export processing zones to free trade ports or areas. In 2002, there were approximately 3,000 variations of special economic zones (SEZs) in 116 countries.[20] Rapid urban growth that accompanies the creation of a SEZ is largely an Asian phenomenon: 35 SEZ Asian cities experienced the fastest urban growth among all cities in the developing world from 1990 to 2000; 11 were in China, 9 were in India, 5 were in South Korea and the rest were distributed among other Asian countries. In Latin America and the Caribbean, 12 cities in 5 countries – 8 in Mexico, 1 in Dominican Republic, 1 in Chile, 1 in Peru, and 1 in Paraguay – grew rapidly as a result of designation as SEZs. In Africa, SEZs contributed to rapid urban growth in only two countries: Egypt (Suez and Port Said cities) and Libya (Tripoli and Banghazi).

China's eastern and southern coastal areas have experienced rapid population growth, making them among the fastest growing cities in Asia. The establishment of SEZs in the 1980s, and the further expansion of the coastal belt in the beginning of the 1990s, led to high economic and population growth. The SEZs were originally set up in four cities along the southern coast – Shenzhen, Zhuhai, Shantou and Xiamen – to attract foreign capital and advanced technology and management systems, in line with China's economic reforms. Globalization and the outsourcing of production to these cities helped to accelerate their growth. The Chinese policy was also strategic in terms of foreign direct investment. For example, investment in the computer manufacturing sector, one of China's highest growing hi-tech sectors in recent times, were planned and concentrated around the Pearl River Delta, Yangzi River and the Look BoSea Region. As a result, intermediate-size cities such as Yantai and Qinhuangdao grew at approximately 5 per cent per year, and Wenzhou and Xiamen grew at an impressive rate of more than 11 per cent per year, while the city of Shenzhen, located in the heart of Pearl River Delta, experienced a phenomenal annual growth rate of 20.8 per cent, slightly more than the city's economic growth rate of 16.3 per cent in the 1990s.[21] Shenzhen's population grew from fewer than 1 million inhabitants in 1990 to 7 million by 2000, and the GDP of 15 SEZs along China's coastline accounted for nearly 21 per cent of the national total.[22]

These cities are not only engines of China's economic growth, but also of the country's transformation from a

predominantly rural society to one that is increasingly becoming urban-based.[23] Designated economic zones in other countries have also helped accelerate urban growth; for instance, the Iranian city of Sirjan and the Indian urban agglomeration of Nashik grew rapidly in the 1990s, at the rate of 6 and 4 per cent, respectively, owing to their designation as special economic zones.

In South Korea, the implementation of industrialization and export promotion policies in the late 1970s led to rapid growth rates in urban areas, but with significant regional imbalances. As a result, the government adopted a regional policy of placing industrial parks in areas that were lagging behind, and implemented the so-called "three coastal areas development strategies".[24] These policies helped redress spatial inequalities by boosting urban growth in various coastal cities, particularly in Yeosu, Gyeonan and Cheonan, which grew at approximately 6 to 7 per cent per year, and Gimhae city, which experienced the highest annual population growth rate of 11.6 per cent on average.

In Mexico, export processing zones, known as "Maquiladoras", which are given special incentives to attract industrial foreign investors through infrastructural development, tax exemptions, and the like, boosted the development of nine cities along the Mexico-U.S. border: Ensenada, Reynosa, Matamoros, Nogales, Nuevo Laredo, Chihuahua, Ciudad Juarez, and Tijuana. The outcome of the border's dynamic maquiladora growth has not only improved job creation, exports and foreign exchange in Mexico,[25] but has also resulted in remarkable population growth in all of these border cities, which grew at an annual rate greater than 3 per cent from 1990 to 2000[26] – two times faster than the national average.

> Proximity to geographical features or political entities that facilitate trade often explains which cities will benefit from investments

In Libya, an overwhelming concentration of the population lives along the northern coast, principally in the Gafara and Benghazi Plains, which are more favourable for agricultural productivity and living conditions than elsewhere in the country. A 2002 study reports that urban centres such as Benghazi, Misurata, Tripoli and Zawia, all coastal cities, are growing at a rate twice that of the national average. Favourable state policies promoting open boundaries and economic opportunities followed by huge public investments will continue to encourage migration to these coastal cities.[27]

These patterns suggest that urban growth in many countries is initially driven by national governments, and then further propelled by local authorities. In this scenario, central governments quite often determine which cities will benefit from investments and macroeconomic decisions. National governments of countries as diverse as Thailand, the Philippines, South Korea, Mexico, and Brazil are concentrating more attention and resources on particular city-regions. Others, like Malaysia and China, are using cities to connect the nation to the global space of business and trade, while concurrently propelling social change in desired directions.[28] It is clear that the growth of the fastest growing cities in the developing world cannot be adequately understood without an examination of the matrices of state territorial organization within and through which it occurs.[29]

This does not mean that local authorities are not playing an important role in economic and urban growth. Local authorities, in conjunction with political and economic local and regional elites, are transforming their cities into dynamic economic areas oriented towards global, regional and local growth sectors. Indian cities such as Salem, Pimpri, Chinchawad and Pune; the Mexican cities of Guadalajara and Ensenada; and Maracay, Venezuela, Cuenca, Ecuador, and Zambaoanga, the Philippines, to name just a few cities, are all growing at the annual rate of 3 per cent or more by adopting pro-growth strategies through place marketing and promotion, focusing on high-potential economic sectors. Major urban centres in South Africa have also adopted different forms of economic development strategies as part of city-integrated development plans, which have been implemented through local economic development units. As a result, economic growth in these cities (3.2 per cent) was higher than population growth by slightly more than 1 percentage point between 1996 and 2001.[30]

The growth of cities through local initiatives reflects a rising trend toward greater urban entrepreneurialism and more intense city competition. However, many cities in the developing world, particularly in the small and intermediate ranks, do not have adequate financial and human resources to conceive and implement medium- and long-term development strategies. These cities, and many other large agglomerations, often compete with each other to gain recognition as important urban centres and to be included in regional and national development plans and strategies, which gives them the authority to be considered in the allocation of budgets and to be part of strategic alliances that combine private and public resources.

This articulation of local initiatives with central government economic and political decisions is bringing about changes in the governance paradigm, in which the private sector is often involved with specific plans and funds. At the national or regional level, the central government decides on macroeconomic policies with clear spatial implications, implements institutional reforms and mobilizes domestic resources to support infrastructure and communication development. On the other hand, local authorities design local development strategies or refashion their policies, programmes and projects to link up with wider initiatives that mobilize public and private investments at a larger scale.[31]

Transport and communications infrastructure

Transport and communications systems are fundamental to development. The construction and maintenance of roads, highways, ports, airports, urban and inter-urban railways, and other forms of transport systems determine, to a large extent, whether or not cities and countries will succeed economically.[32]

Investments in transport infrastructure and related reforms in the sector, including finance and regulations, deliver major economic development benefits,[33] contribute to poverty alleviation, and improve the quality of life of citizens.

Transport connectivity is the most important driver of city growth in developing regions, particularly in Asia and Africa. Two-fifths of the 245 cities in the UN-HABITAT sample of the developing world's fastest growing cities have benefitted from diversification and improvement of regional transport systems, in terms of infrastructure and technology. Investments in transport not only increase the overall productivity of nations' and regions' economies, but they can also contribute to the maintenance of balanced regional development and the reduction of socio-economic disparities across space and people. Transport connects areas with economic potential to isolated places that otherwise would be left far behind.

Many countries improve their transport and technology systems when they open or liberalize their economies to reduce tariff and transport costs. These related initiatives have opened an array of markets and fostered growth in individual cities. Transport connectivity is integral to the economic growth of second and third-tier inland cities that have a functional connection to coastal settlements, transnational borders and other larger cities. As a result of transport and communication investments, inland urban centres are growing both economically and demographically. A study on population change from 1995 to 2000 shows that cities in coastal areas are not the fastest growing cities any more; in fact, cities in almost all ecosystems are growing at roughly the same of rate of 2.2 per cent per year. In Africa, cities in mountainous and forested areas grew the fastest, at the rate of 3.6 and 3.7 per cent annually, compared to the growth rate of 3.3 per cent per year for cities in coastal zones. In Latin America and the Caribbean, cities in dryland, forest and inland water ecosystems grew equally at the rate of 2.2 per cent per year, which is higher than the growth rate of coastal cities during this period (2.0 per cent per year).[34] Better transport and communications infrastructure in several countries has made these cities more attractive destinations for economic activities, contributing to high rates of growth.

For similar reasons, inland Chinese cities such as Xinyang and Nanyang grew at an impressive rate of 15 per cent per year as a result of national efforts to develop transport infrastructure and communication technology in central China. New urban centres are also developing some 200 kilometres from the coastline in the eastern part of the country; these cities are already creating a new wave of urban settlements in the interior with strong linkages to the coastal region.[35] In other Asian countries, coastal cities are receiving a new boost; for instance, the cities of Tirunelveli and Tiruchirappalli in the southern part of India, and Sirjan in the Islamic Republic of Iran, experienced growth rates of around 5 per cent per year, mainly because they have developed into important transport hubs.

In the Philippines, cities such as Mandaue, Davao and Cebu experienced significant urban and economic population growth as a result of the implementation of the Local Productivity and Performance Measurement System (LPPMS), which promoted the development of cities conducive to business, industry and entrepreneurship, and in which infrastructure development played a key role.[36]

Investments in transport facilities in various transnational border cities that combine large transport and distribution functions with trade activities have also boosted urban growth. In many cases, the strategic border location has been enhanced by industrial development, tourism or the development of a port: the Iraqi city of Basra, the country's main port, located close to the Kuwaiti and Iranian borders in the southeast part of the country, experienced population growth of 4.5 per cent per year in the 1990s; Nuevo Laredo, a small city of only 300,000 people that accounts for 70 per cent of all Mexican goods exported to the United States by road, expanded its population at a rate of 3.4 per cent per year; and the Venezuelan city of San Cristobal on the Colombian border grew at 2.6 per cent per year. In addition to these cities, many other urban centres that are positioned at the convergence of land or sea border transport systems experienced accelerated economic and population growth between 1990 and 2000.

In many other cases, the expansion of regional transport networks boosted the development of urban centres located along railways and roads lines, often as trade and tourism places. This has been the case with the Latin America and Caribbean cities of Bayamo in Cuba, Chiclayo in Peru and San Cristobal in Venezuela, all of which grew at a rate of between 1 and 2 per cent annually following the development of provincial transport networks that were linked to national railway and roadway systems. In Africa, the expansion of transport infrastructure in the 1990s contributed to the growth of dozens of cities, both on the coastline and in the interior. Cities such as Annaba and Tebessa in Algeria grew at an annual rate of 3 per cent or more because a national railway line passed through them, and the city of Tiaret grew at a similar rate as a result of the construction of a high plateau line. Populations in the cities of Kaduna and Maiduguri in Nigeria also expanded with the improvement of the road and railway systems, the former for industrial development and the latter for transport services.

Connectivity through the development of infrastructure has been vital for the growth of cities in close proximity to larger urban centres. A considerable number of small and intermediate cities grew as bedroom communities, residential suburbs or satellite cities, offering the amenities of urban life – proximity, convenience and diversity – without the disadvantages, such as air pollution, congestion and crime. Investments in transport have effectively reduced the "commuter territory" in many places, linking metropolitan and sub-regional spaces and interconnecting various urban settlements in neighboring geographic locations.

In Asia, the development of better commuter systems has led to the growth of new cities, such as Ghaziabad, Noida, Faridabad, and Meerut, which have boomed as satellite cities of New Delhi, each with annual urban growth rates of between 3 and 6 per cent. The planned city of Navi Mumbai grew at a staggering pace of 7 per cent per year

Subway in Seoul, Korea; Transport connectivity is one of the most important drivers of urban growth in developing countries.
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in the 1990s as part of the deconcentration strategy of the megacity of Mumbai; two other cities in the vicinity, Kalyan-Dombivli and Thane, experienced more spontaneous growth by offering more affordable housing solutions and adequate transport facilities. Information technology (IT) hubs, such as Bangalore and Hyderabad, are also experiencing growth driven by the establishment of international software companies that attract young professionals to the IT sector.

In South Korea, various cities have been experiencing rapid urban growth as part of the greater Seoul Metropolitan Area: Seongnam, which grew as a residential city; Suwon and Puchon, which became satellite cities that share the same subway line; and Incheon, which in 2001 built its own international airport. In Iran, the metropolitan areas of Isfahan and Tehran gave a boost to well-connected neighbouring cities: Khomeini-Shahr city, which grew at the rate of approximately 4 per cent per year, boosted by infrastructure development and the relocation of various companies from Isfahan; and Karaj city, which grew at an impressive rate of 8 per cent per year from 1994 to 2003, benefited from the commuter surface connection Teheran-Karaj, Mehrshahar Express Line and a privileged geographic location at the crossroads of the western and northern routes of the country.

Proximity to a large urban agglomeration is an important determinant of growth in many small and intermediate Latin American cities. Between 1990 and 2000, small and intermediate cities grew faster when transport and communication infrastructure was extended to them or substantially improved. Better connectivity allowed them to exploit the employment opportunities, improved access to public amenities, and recreational and cultural services offered by big cities. Simultaneously, the small and intermediate cities were in a better position to offer land, housing and labour at a fraction of what they would cost in a big city, sometimes with a higher quality of life. They were also in a better position to offer specialized services around tourist attractions and scenic natural environments with comparative advantages. Alajuela city in the vicinity of San Jose, the capital of Costa Rica, experienced rapid urban growth, at a rate of 4 per cent per year, by hosting the main airport serving the country. The location of an international airport in the small city of São José dos Pinhais in Curitiba, Brazil, combined with good road infrastructure and industrial development, propelled the growth of the city at an annual rate of more than 9 per cent. San Bernardo in the Santiago Metropolitan Region in Chile saw growth of approximately 3 per cent per year as a result of the construction of a new highway that attracted industrial development. Likewise, the city of Cabimas in Venezuela grew at a rate of 3 per cent per year as a result of its oil production and its reliable highway connection to the city of Maracaibo.

Luxurious residential buildings in Dubai Marina: The city's remarkable growth has been propelled by a combination of innovative real estate projects, financial services and development of the tourism industry.
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Information technology and financial services sectors

The development of economic infrastructure related to information technology and financial services was identified as the third most important economic driver of city growth in the developing world in the UN-HABITAT analysis. Investments in information and communication technology (telephone, cellular and radio services, and electronic communication), and related communication services, such as financial, banking, insurance, and other various forms of trade, were the primary boosters of growth in 39 of the 245 fastest growing cities in the developing world.

In addition to the already well-known urban centres that experienced significant economic and population growth in recent years as a result of financial trade and communication services, such as Singapore, Kuala Lumpur, Beijing, and Hong Kong, other cities in countries from India to Venezuela, Pakistan to Mexico, Cameroon to Puerto Rico also witnessed rapid growth as a result of public and private investments in communication technology and related services, including various other forms of trade. Hyderabad in India was transformed into a dynamic economic region oriented toward global growth sectors, inspired by the infrastructure-led growth model, focusing on industrial development, particularly in the information technology (IT) sector.[37] Likewise, the city of Bangalore has become a major centre of information technology and software services in the country with an annual population growth rate of 2.2 per cent from 1991 to 2001. The city of Gumi, known as the Korean Silicon Valley, and the Chinese cities of Xian and Changsha, two high-tech industrial development zones, grew at the annual rate of 5 per cent. The coastal city of Karachi in Pakistan increased its population by more than 3 million people from 1990 to 2000, mainly as a result of high fertility rates, national and international in-migrations, trade activities related to the port, and the growth of information and communication technology industries. Dubai in the United Arab Emirates experienced a remarkable growth rate of 7 per cent per year during the 1990s by combining innovative real estate projects with IT, industrial and finance services, free trade zones and the development of the tourism industry.

Improvement in the quality of life

Of the 245 sample cities, 25 experienced rapid urban growth principally by improving the quality of life and well-being of their citizens. Some cities developed clear visions and strategies for their potential futures, articulating short- and medium-term responses that contributed to enhancing social, economic and, in some cases, environmental conditions, including personal safety and health, transport and other public services.

Cities such as Curitiba, Goiania and Fortaleza in Brazil and Gaziantep in Turkey grew at a rate of more than 2 per cent per year, largely by setting up good governance structures that enabled them to bring benefits to their inhabitants by expanding their connection to infrastructure, piped water, sewerage, electricity, and telephone, and by developing social amenities such as schools and health centres.[38] The small city of Rishon LeZion in Israel doubled its population in

20 years, starting in the mid 1980s, through the creation of employment opportunities, high-quality schools and services –including innovative urban transport – open spaces and green areas within the city. Today, Rishon LeZion is the fastest growing metropolitan area in the country, growing at 3.3 per cent per year, with the highest average per capita income and a record number of square metres of park space per resident.[39]

A similar situation has been observed in the city of Bacolod in the Philippines: despite experiencing a rapid growth rate of 2.4 per cent per year in the 1990s, it was ranked first in the country's quality of life assessment in 2006.[40] In China, the city of Yantai in the eastern part of the country grew at an accelerated annual rate of more than 7 per cent from 1990 to 2000 following its complete transformation into a "safer, greener and better serviced city". This award-winning city has successfully competed with large Asian cities for new investments by embracing sustainable development principles that combine strategies to create a more conducive environment for business and good-quality housing solutions. The city of Dubai in the United Arab Emirates is a first-class example of economic and urban development based on risk-taking and profit-oriented strategies that are boosting economic and urban growth based on the concept of a "quality of life city". Many other cities in developing countries are enhancing their attractiveness through the development of high-quality services in various sectors, including the city of Davao in the Philippines, which is considered one of the most competitive and liveable cities in the country.[41]

In the 1990s, quality of life was an important driver of growth in cities that implemented place-specific development strategies, raising living standards by building economic infrastructure and social amenities. These cities boosted their economic and urban growth by exploring natural advantages, often in the tourism and leisure industries. Good examples of this are the Chilean cities of Temuco, La Serena and Villa del Mar and Rishon LeZion in Israel. The Moroccan cities of Saîda, Taghazout, Mogador and El Haouzia implemented a "Sustainable Development of Coastal Tourism Programme", which provides water, electricity, roads, and telecommunication infrastructure to new real estate developments along the coasts. Similarly, various South Korean cities have developed the "Corporate Cities" concept, merging business, research, tourism, and residential areas in new urban developments. [42]

An important driver of city growth related to quality of life is the construction of a prominent public or private institution, often a university or research institute. The Algerian cities of Blida, Tlemcen, Sidi-bel-Abbès and Setif, the city of Bobo Dioulasso in Burkina Fasso and Concepción in Chile grew, to a large extent, as a result of the attraction of their institutes of higher learning.

Administrative and/or legal changes in city status

Between 1990 and 2000, 30 cities in the UN-HABITAT sample of 245 rapidly growing cities experienced administrative and political changes, often absorbing large populations that were not previously part of the city. This form of urban growth – of urban change, in fact – is largely influenced by governments' decisions to modify the legal and administrative status of urban areas very often as a response to economic growth or as a way to induce economic development. These modifications involve changes in the size of cities, their boundaries, forms of classification and definition.

Another dimension of change in administrative designation is the reclassification of rural areas into cities. Reclassification accounts for approximately a quarter of urban population increase in the developing world. Scholars have pointed out that in most parts of the world where reclassification occurs, it tends to be in areas that have experienced, or are experiencing, the fastest economic growth. In China, for instance, 25 per cent of urban growth in the country has been attributed to reclassification; this phenomenon is particularly prevalent in the eastern part of the country.[43]

An obvious form of urban growth resulting from geopolitical decisions is the transfer of capital cities to other small cities or to new, previously undeveloped locations. Other cities were designated capitals of their provinces or departments, and by virtue of this change experienced significant population growth, as was the case in Samarinda, Indonesia.

The change of administrative and legal status is an important driver of many cities' growth; 12 per cent of the 245 cities analyzed by UN-HABITAT recorded administrative changes as the most significant factor in their growth between 1990 and 2000. Twenty-seven of the 30 cities that experienced an administrative or legal change in their status were in Asia, while the remaining 3 were in Latin America and the Caribbean; no city sampled in Africa grew as a result of change in status. In Asia, more than half of the legal and administrative city definitional changes occurred in China (8), South Korea (9) and Indonesia (3). In China, contrary to the policies restricting urban development before the era of economic reforms, the government adopted a more positive attitude toward the designation of cities and towns in the 1990s[44]; this not only increased the number of cities, but also led to a population increase in cities. Cities such as Lu'an, Xinyang and Nanyang grew at an astounding annual rate of more than 15 per cent following their changed ranking from county-level cities to prefecture-level cities and the expansion of the urban area.[45] A similar situation occurred in the small South Korean cities of Gyeongiu, Yeosu, Gumi, and Pohang, which merged with other counties in 1995, precipitating population growth of approximately 5 per cent in each of the cities. In Indonesia, the cities of Sukabumi and Bogor grew at a rate of more than 10 per cent every year as a result of the expansion of the administrative area.

New entrants in the league of cities

Between 1990 and 2000, urbanization in developing regions was characterized by the entry of new cities that did not exist as such in 1990. This constellation of 694 new cities started out as rural towns and became urban areas by virtue of changes in their administrative status, natural growth or in-migration.

These significant changes took place mostly in Asia, where more than 295 settlements became small cities, followed by 171 new small cities in Latin America and the Caribbean. More than 90 per cent of the cities in which populations grew from fewer than 100,000 to more than 1 million people were also in Asia, owing to a variety of factors, including changes in administrative and legal boundaries and changes in political status of settlements.

Among the cities that emerged after 1990, 73 per cent joined the category of small cities, 19 per cent became intermediate cities and 7.5 per cent developed into big cities.

Not only did the number of cities increase, but many of the cities that existed in 1990 also became larger: 122 small cities (13 per cent) became intermediate or big cities; 66 intermediate cities (23 per cent) became big or large cities; and 10 big cities (5 per cent) developed into large cities. On the other hand, 17 cities contracted, changing from big to intermediate or from intermediate to small.

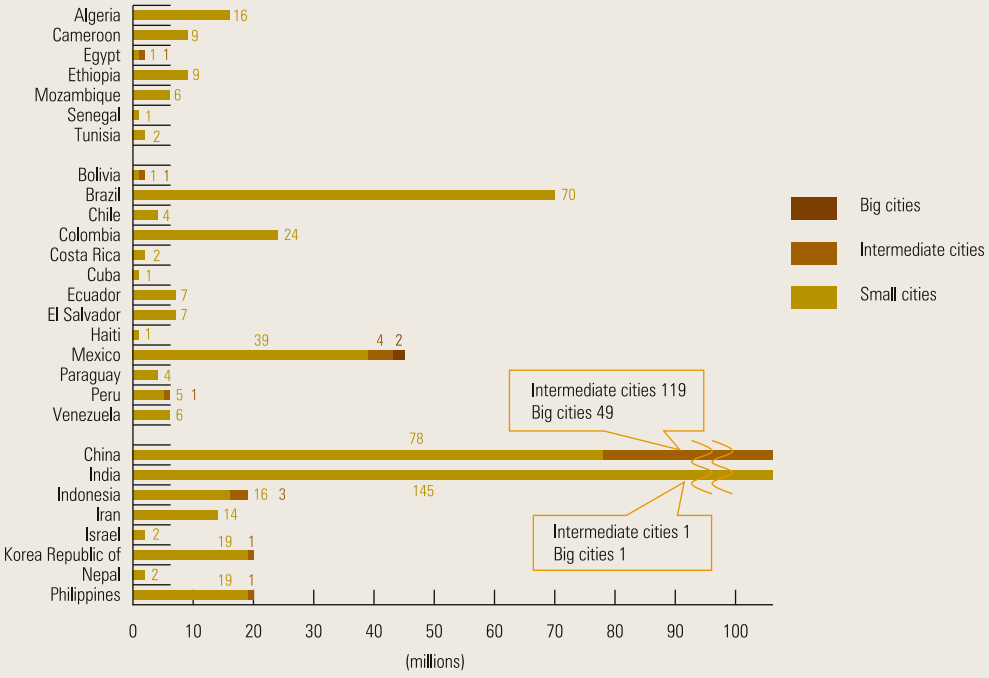
These changes are not only a matter of numbers – they also represent a qualitative change in what the world perceives to be "small", "intermediate" and "large" in terms of city size over time. The emergence of "hyper-large" or "meta-city" urban agglomerations with more than 20 million inhabitants has led to a fundamental shift in conceptions of city size.

TABLE 1.3.2: **NUMBER AND TOTAL POPULATION OF NEW CITIES ESTABLISHED SINCE 1990**

	New small cities		New intermediate cities		New big cities		Total	
	Number	Population	Number	Population	Number	Population	Number	Population
Africa	44	6,335,094	1	523,265	0	0	45	6,858,359
Latin America & Caribbean	171	27,138,867	6	3,930,127	2	3,008,885	179	34,077,879
Asia	295	60,825,858	125	86,595,611	50	65,491,865	470	212,913,334
excluding China & India	72	13,374,321	5	3,109,207	0	0	77	16,483,528
China	78	26,331,991	119	82,966,103	49	64,485,448	246	173,783,542
India	145	21,119,546	1	520,301	1	1,006,417	147	22,646,264
TOTAL	510	94,299,819	132	91,049,003	52	68,500,750	694	253,849,572

Source: UN-HABITAT Global Urban Observatory 2008
Data source: UN Demographic Yearbooks, various years (1985 - 2004)

FIGURE 1.3.2: **NUMBER OF NEW CITIES AFTER 1990 IN THE DEVELOPING WORLD**



Source: UN-HABITAT Global Urban Observatory 2008
Data source: UN Demographic Yearbooks, various years (1985 - 2004)

▲
Chengdu city in China
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Bangalore: India's Silicon Plateau

As recently as the late 1980s, Bangalore, a quiet hillside city in southern India blessed with lush greenery, was known primarily as a "pensioner's paradise". All this changed in the 1990s when Bangalore emerged as India's first "technopolis".

Described as India's "Silicon Plateau", in reference to the city's high altitude and the concentration of high-technology companies in its environs, Bangalore is a city that has achieved remarkable success as a result of national policies that encouraged the development of an information technology (IT) services industry. The city's emergence as an IT hub began in the early 1990s, when the Government of India began pursuing an "informationization strategy" that hinged on the development and export of computer software. The strategy led to several policies and programmes aimed at boosting information technology, including the establishment of a national Information Technology Task Force in 1998. The adoption of this strategy saw Indian computer software exports rise from US$100 million in 1990 to nearly US$10 billion in 2004 (more than 2 per cent of India's GDP). Growth is still in excess of 25 per cent for the industry as a whole, and is projected to reach $50 billion by the end of this decade. In India today, more than half a million people are employed by almost 3,500 companies in this industry.

Bangalore now hosts more than 500 high-tech companies that produce computer hardware and software. Large multinational software companies have established bases in Bangalore as have leading Indian high-tech companies. Silicon Valley "micro-multinationals" are also tapping into the city, which is seen as an innovation and support hub. A lot of the software work was, until recently, project-based, involving a mix of on-site and offshore programming. A second wave of development has been in research and development (R&D), innovation and intellectual property, particularly along the United States-India technology corridor.

Domestically, huge markets are growing in sectors such as mobile communications, with India adding a steady 8 million new subscribers every month. A mindset change is also being observed in academic institutes where a new crop of students are more entrepreneurially-driven and globally-oriented than before. In the late 1990s, a new growth driver emerged for the Indian IT services industry: the IT-enabled services sector or ITES. This term referred to the business process outsourcing (BPO) and call centre services. Young, educated, English-speaking Indians deliver remote services – made possible by low-cost communication technology – to clients in the United States and Europe in areas as diverse as processing credit card applications, human resources benefits administration, insurance claims processing, telesales and telemarketing, and customer support.

Bangalore's strengths as an IT centre include widespread English skills, sheer numbers of lower-wage "techies", experience in managing global software and services projects, growth in multinational company development centres, and connections with non-resident Indians (NRIs) in California's Silicon Valley who are excelling there. In addition, Bangalore's evolution as an IT hub was facilitated by the presence of a large state-run industrial technology sector (especially in aeronautics), a cluster of the country's leading scientific research institutes (such as the Indian Institute of Science) and a pool of highly qualified technical manpower. The city has been compared to the Silicon Valley phenomenon in major technology hotspots of the world: Cambridge in England, Helsinki in Finland, Tel Aviv in Israel, Singapore, and the HsinChu-Taipei belt in the Taiwan province of China. These cities share many success factors: low taxes, venture capital (VC), risk-taking start-up culture, business webs, physical infrastructure, IT-savvy local population, local "living laboratories," good local markets, networking skills, activities and organizations for communities of interest, co-location of companies in various stages of development, flexible organizational structure, legal/accounting services, mergers and acquisitions activity for flow of skilled labour and intellectual property, local academic and research institutes, commercial partnerships between academia and industry, activist government policy via research funding and small business debt assistance, speed of business activity, presence of role models, human talent in innovation, serial entrepreneurs, marketers, and managers.

A recent UN Human Development Report ranked Bangalore as the only city among the top ten centres of technological innovation to be located in a developing country. However, while Bangalore gets a high ranking as a major technology hotspot, it faces several challenges and obstacles, including poor infrastructure, a massive digital divide, government bureaucracy, presence of just a few higher educational institutes, low research and development spending by IT companies, and high employee attrition especially at the level of team leaders. Cultural divides have also grown between locals and outsiders, including non-resident Indians from abroad, who have flocked to the city's hi-tech industry. (In 2007 the city was officially renamed "Bengaluru" to reflect the concerns of the local language movement, but the name Bangalore is still commonly used.)

Bangalore's global ambitions are thus threatened by its crumbling infrastructure, according to analysts and even ordinary citizens. Scores of tall, massive apartments now dominate Bangalore's skyline, a testimony to the real estate boom and expanding horizons of the IT spectrum, but many of them have inadequate water and power supplies and poor access roads. Many companies use generators to compensate for power outages.

A study by the Asian Development Bank found that among Indian cities with 5 million or more residents, Bangalore is the second fastest growing in terms of population, experiencing a population growth rate of 2.8 per cent a year. The study projects the population of Bangalore to increase from the current 6 million to nearly 10 million in 2020. Among Asia-Pacific cities with 5 million or more residents, Bangalore stands eighth in terms of rate of population growth. (Dhaka, with an annual increase of 3.8%, tops the Asia-Pacific list.)

In order to deal with the problems associated with the rapid expansion of the city, State governments have been trying to obtain "Metropolitan City" status for Bangalore in order to become eligible for more central government funds. A separate fund for infrastructure has also been established, not only to attract more investments to the city, but also to overcome the congestion caused by traffic. Upcoming projects include the Bangalore Metro Rail Project, Bangalore Mysore Expressway, and a number of ring roads, elevated expressways and underpasses.

TECH HOTSPOTS AND THEIR RATING (ON A SCALE OF 1-5)

	Startup Activity	Human Talent	Venture Capital	Global links	Univs. /R&D	Taxes/ Regul.	Total
Britain/Cambridge	3	4	4	2	4	4	3.45
Finland/Helsinki	3	4	3	3	5	3	3.45
India/Bangalore	4	3	2	4	2	2	3.05
Taiwan province of China/ HsinChu-Taipei	4	4	4	5	5	5	4.35

Source: Rosenberg, 2002.

Sources: Anandram, 2004; Rosenberg, 2002; Singhal & Rogers, 2001; Asian Development Bank, 2008. Text and analysis by Madanmohan Rao.

NOTES

[1] Ofori-Amoah, 2007.
[2] UN Department of Economic and Social Affairs (DESA), 2006.
[3] Veni 2005.
[4] Thanh, 2006.
[5] Pantelic, 2000.
[6] UN DESA, 2006.
[7] Census of India, 1991.
[8] UNFPA, 2007.
[9] Zhu 2004.
[10] ECLAC 2007
[11] South African Cities Network, 2006.
[12] Kasarda & Crenshaw, 1991
[13] Ibid.
[14] Urban primacy exists where the largest city has a size that exceeds the expected size under the rank-size rule. In an ideal system of cities, there is a lognormal frequency distribution by size, which forms a rank-size distribution. There are several ways to measure "urban primacy". Some define it as a ratio of twice or three times the population size of the second-largest city. Others use the ratio of twice the size of the combined second and third-largest cities. In this Report, primate cities are considered as concentrations of more than 20 per cent of the country's urban population.
[15] The sample comprised 37 cities in Africa, 57 cities in Latin America and the Caribbean and 151 cities in Asia.
[16] A maximum of 10 cities experiencing the fastest population growth per category of city size were selected in each country, using a matrix with various possible reasons for population growth. Based on the results and frequencies of different factors, a table was prepared with the most frequent three factors: 1) administrative change; 2) economic reasons separated into three indicators: a) designation of economic zone; b) investments in infrastructure; c) service sector development; and 3) improvements in quality of life. For each city, only one factor was taken into account (i.e., designation of economic zone) despite the fact that in reality, more than one factor contributes to city growth (designation of economic zone plus infrastructure investments). In combination with economic reasons, quality of life was not selected as a main reason for growth. Some cities with fast growth were not included in the analysis, either because they were not clear enough or not confirmed. This method should be considered as a preliminary qualitative approach to city growth analysis. The sources of information were consultation with experts in cities or regions, advice from ECLAC and ESCAP professionals in the area, UN-HABITAT programme managers in a number of countries, two special advisers for China and India, city council web sites, specialized articles, national statistical web sites, and the like.
[17] Some academicians argue that coastal areas, and particularly port cities, are no longer playing the same determinant role as in the past in the economic development of cities. However, leading thinkers note that the core coastal region has a mere 10 per cent of the world's population but produces at least 35 per cent of the world gross national project. See Gallup, Sachs & Mellinger, 1998.
[18] In this sense, it is interesting to note that countries located in disadvantageous geographic areas, such as landlocked nations, are in typically poor, with the exception of a handful of countries in Western Europe that are deeply integrated into the regional European market and connected by different transport means. See Gallup, Sachs & Mellinger, 1998.
[19] Urban growth in Gaborone is also explained by the reclassification of traditional villages and urban towns as "urban villages". This administrative process is a key factor in urban growth. The share of "urban villages" in the urban population has increased from 10 per cent in 1981 to 60 per cent in 2001. Botswana, Central Statistics Office, website accessed in November 2007.
[20] Changwon, 2005.
[21] Shenzhen's economy grew also at the fast rate of 16.3 per cent. China Statistical Yearbook 2002-2006, National Bureau of Statistics of China – 2002-2006 editions.
[22] National Bureau of Statistics of China (2002 - 2006), China Statistical Yearbook 2002 - 2006, Beijing.
[23] Hu & Yueng, 1992.
[24] East Coast Development, South Coast Development, and West Coast Development.
[25] From 1983 to 2000, annual growth in maquiladora employment and exports averaged almost 14 per cent and 21 per cent, respectively. At about 1.3 million workers, maquiladora employment represented 29 per cent of Mexico's manufacturing jobs in 2000, up from slightly more than 7 per cent in 1983. Vargas, 2001.
[26] Except the city of Chihuahua, which grew at 2 per cent.
[27] Antipolis, 2002.
[28] Henry, 2004.
[29] Olds & Yeung, 2004.
[30] South African Cities Network, 2006.
[31] Harvey, 1989.
[32] World Bank, 2004b.
[33] A 1 per cent increase in the stock of infrastructure is associated with a 1 per cent increase in GDP. World Bank, 2004.
[34] Balk, McGranahan & Anderson, forthcoming.
[35] Small-sized cities concentrated 18.6 per cent of foreign direct investment in 1990, and most of these cities (95 per cent) are located in the Eastern region. Moreover, foreign investment from Hong Kong is mainly located in rural settlements of the Pearl River Delta that will contribute to the rapid rural urbanization of this area. China Urban Statistical Yearbook, 1991.
[36] Department of the Interior and Local Government, the Philippines, UN-HABITAT & UNDP, 2007.
[37] Kennedy, 2007.
[38] Bazoglu, 2007.
[39] The city enjoys the best quality of life, with 17 square metres of parks per resident compared to the national average of 5 sq. m. http://duns100.dundb.co.il/companies.
[40] This assessment included criteria such as incidence of theft and murder, number of hospital beds, length of life expectancy, cleanliness of roads and public open spaces, and competitiveness of the economy. Bacolod, 2007.
[41] Davao city, 2007.
[42] Quote by Lim Byoung-Soo, Assistant Ministry of Culture and Tourism.
[43] The People's Government of Lu'an, n.d.
[44] Zhu, 2003.
[45] Lu'an City remained at county level until September 1999, when the Lu'an Prefecture was removed and the City of Lu'an was promoted to the prefecture level. The former area of the county level Lu'an City was divided into two parts and became Jin'an and Yu'an districts of the prefecture level Lu'an City. In March of 2000, Lu'an City was put under the direct administration of Anhui Provincial Government. The People's Government of Lu'an, n.d.