



Regional up-dates: Europe & North America at a glance

Growth and more urban growth

- More than 70 per cent of the population of the developed world is already urban. 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.
- 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 global South is ten times that of cities in the global North.
- On average, 2.3 million people migrate into developed countries each year. This means that migration – both legal and illegal – accounts for approximately one-third of the urban growth in the developed world. Without migration, the urban population of the developed world would likely decline or remain the same in the coming decades.
- 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. 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.

Growing cities

- 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.
- 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 the 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.

Shrinking Cities

- While some cities are growing more rapidly than others, the widespread assumption that increasing global urbanization means that all cities are growing is false; in fact, evidence shows that in all regions of the world, and especially in the developed regions, many cities are actually shrinking in size.
- 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. Larger cities and metropolitan conurbations in the United Kingdom, with the exception of London, are almost all declining in size.
- Negative growth trends are largely associated with cities in North America and Europe, where the number of shrinking cities has increased faster in the last 50 years than the number of expanding cities. In the United States alone, 39 cities have endured population loss.
- In the United Kingdom, Germany and Italy, 49, 48 and 34 cities, respectively, shrank in size between 1990 and 2000. A number of cities in countries of the former Soviet bloc are losing population. Nearly 100 Russian cities experienced negative growth in the 1990s; in Ukraine, 40 cities experienced population loss.

1200

1300

1400

1500

1600

1700

1800

1900

2000

(World Population in Billions)



For richer or poorer: Urban Inequalities

- At the global level, on average, the most egalitarian cities in the world are located in Western Europe. Income inequalities are also low in most urban areas of Eastern Europe, followed by cities in the countries of the Commonwealth of Independent States (CIS) and in other developed countries, such as Japan, Australia and Canada, inequalities in cities are also relatively low.
- In the developed world, specifically European countries, Denmark, Finland, the Netherlands, and Slovenia, exhibit relatively low levels of inequality (Gini coefficient below 0.25, the lowest in the world).
- Inequalities are also low in Austria, Belgium, France, Germany, Luxemburg, Norway, Sweden, and Switzerland, where the Gini coefficients range from between 0.25 and 0.3. Low levels of inequality reflect the performance of national and regional economies in these countries and the regulatory, distributive and redistributive capacity of the national and local welfare states.
- Countries with relatively high inequalities by European standards are Greece, Ireland and Italy, (Gini coefficients between 0.32 and 0.33); Portugal (0.363); the United Kingdom (0.343); and Spain (0.34).
- Although cities in the United States of America have relatively lower levels of poverty than many other cities in the developed world, levels of income inequality are quite high, and have risen above the international alert line of 0.4. Large cities in the United States tend to be more unequal than small cities.
- Major metropolitan areas, such as Atlanta, New Orleans, Washington D.C., Miami, and New York, have the highest levels of inequality in the country, similar to those of Abidjan, Nairobi, Buenos Aires, and Santiago (Gini coefficient of more than 0.50).
- In Canada and the United States, one of the most important factors determining levels of inequality is race. In western New York State, for instance, nearly 40 per cent of the black, Hispanic, and mixed-race households earned less than US \$15,000 in 1999, compared with 15 per cent of non-Hispanic white households.
- The life expectancy of African Americans in the United States is about the same as that of people living in China and some states of India, despite the fact that the United States is far richer than the other two countries.
- Canada's Gini coefficient is approximately 0.35. However, inequalities are increasing in most of the country's urban areas. In Toronto, for example, median family income in the poorest 10 per cent of neighbourhoods has risen by 0.2 per cent since 1980. In the richest 10 per cent, on the other hand, family incomes rose by 24 per cent. This increasing difference is observed in all large metropolitan areas in Canada.

Urban Environmental Risks and Burdens

Ecological footprint

- Ecological footprints of cities are usually higher than those of their countries. In general, richer cities have larger footprints than poorer cities.
- Today, humanity's ecological footprint is 2.2 ha per person – over 21 per cent greater than the earth's biocapacity (1.8 ha), or its capability to regenerate the resources used.
- It now takes more than one year and two months for planet Earth to regenerate what we, its inhabitants, use in a single year.
- Middle- and low-income countries, on average, do not contribute to the global over-consumption of resources, but exceptions include China and India, whose ecological footprints are twice their biocapacity. There are exceptions in the high-income countries too, such as New Zealand and Canada, whose ecological footprints are less than half their biocapacity.

Emissions at the global and regional level

- The Intergovernmental Panel on Climate Change (IPCC) estimates that the earth's temperature will rise between 1.8 and 4 degrees Centigrade over the course of the 21st century, if current levels of greenhouse gas emissions are not curbed.



- Environmental burdens and risks are heavily concentrated in cities because most human activity is – and will continue to be – urban-based. Agriculture is responsible for 13.5 per cent of other GHG emissions, such as methane and nitrous oxide (N₂O) found in agricultural soils, livestock, and manure.
- Cities are key players in the carbon emissions and climate change arenas because most human and economic activities are concentrated in urban areas. Cities generate a disproportionate share of most nations' gross domestic product (GDP), which typically translates into high levels of energy consumption for industrial processes compared to non-urban areas.
- Urban growth, when not properly planned and managed, can easily threaten the quality of the air, the availability of water, the capacity of waste processing and recycling systems. However, an increasing number of cities are becoming centres of innovation in alternative energy, developing resources that may reduce our dependence on fossil fuels and make our societies more sustainable.
- The United States, China, the European Union, Russia, and India together contribute approximately 61 per cent of global emissions.
- North America had a GDP per capita of US \$28,910 and 5.2 per cent of the global population, and contributed 13.7 per cent of the global emissions in 2000; more than twice that of Latin America and the Caribbean. The United States is amongst one of the five that contributes approximately 61 per cent of global emissions.
- UN-HABITAT analyses show that the contribution of cities to GHG emissions is more related to consumption patterns and gross domestic product (GDP) per capita than it is to levels of urbanization.

Energy Consumption in Cities

- Cities' uses of energy are usually subdivided into four sectors: industry; residential and commercial buildings; and services and transport. The relative weight of each of these sectors depends on several factors, such as level of development, climate, urban layout, and organization of the city's functions.
- Energy consumption is the largest contributor to carbon dioxide (CO₂) emissions, the leading cause of global warming and climate change.
- Energy for heating and lighting residential and commercial buildings generates nearly a quarter of greenhouse gas emissions globally, while transportation contributes 13.5 per cent, of which 10 per cent is attributed to road transport.
- Energy for electricity, heating, transport, industry and other uses combined generates more than 60 per cent of greenhouse gases worldwide. Industry consumes less than 10 per cent of energy in cities such as Berlin and Tokyo because economic activities in there have moved away from industry to services.
- Residential and commercial buildings consume more than half of the energy in cities such as London, Bologna and Tokyo, while the transport sector consumes between 25 and 38 per cent of energy, with the exception of Singapore, which has successfully made urban mobility more energy efficient.
- In industrialized countries, the main obstacle to the reduction of emissions derives from the fact that much of the current urban building stock in Europe was designed and constructed when energy was cheap and global warming was unheard of.
- To meet minimum waste standards, cities must fulfil two prerequisites: minimization of fossil fuel use and material inputs; and maximization of recycling and reuse of energy, water and materials. The need for sustainable, or harmonious, urban development further requires cities to function with a circular, rather than a linear, metabolism.

Urban Mobility

- Transport is a key element in our race toward keeping the earth's temperature at an acceptable level.
- Reducing CO₂ emissions from the transport sector is much easier than cutting those from the building sector: while new buildings can be constructed to consume low or zero energy, the energy consumption of existing buildings can only be improved to a limited extent (as buildings are made to last several decades or even centuries).
- Urban form strongly influences energy consumption and CO₂ emissions. Urban density and CO₂ emissions have a direct, inverse correlation: in general, the lower the density of a city, the higher its emissions from the transport sector.

- Despite the perception that the private car plays a dominant role in urban mobility everywhere, data shows that this is true only in the United States, Canada, Australia, New Zealand, and the Middle East. Elsewhere, non-motorized and mass transit modes prevail. In Western Europe, for instance, non-motorized transport accounts for 50 per cent of urban trips.
- While cities in the United States, Australia and New Zealand lead the world for the number of passenger cars per 1,000 persons, Eastern European cities rank first for number of passenger cars per dollar GDP.
- Western Europe and high-income Asian cities have placed more emphasis on public transport, rather than on individual car ownership, and therefore have lower ratios of car ownership to wealth.
- The trend in developing countries and Eastern European cities, however, is toward increased use of private cars – a result of economic growth and policies that prioritize the construction of urban freeways and parking spaces. Decisions at the national level to support and promote car factories, as many Asian countries have recently made, also support the impression of an irresistible trend toward the uncontrolled diffusion of private motorization.
- An analysis of 28 cities shows that while car use tends to be higher in cities of the developed world, a significant number of cities in the developing world, particularly in Asia, have very high car ownership. Bangkok and Dar es Salaam, for instance, have more cars per capita than Tokyo and Mumbai. And in Singapore, the number of private vehicles per 1,000 inhabitants is lower than that of many cities in the developing world – a result of the city-state’s effective mobility policy.

Drowned and dangerous: Cities and climate change

- In the 20th century, sea levels rose by an estimated 17 centimetres, and global mean projections for sea level rise between 1990 and 2080 range from 22 centimetres to 34 centimetres.
- The low elevation coastal zone – the continuous area along coastlines that is less than 10 metres above sea level – represents 2 per cent of the world’s land area but contains 10 per cent of its total population and 13 per cent of its urban population.
- There are 3,351 cities in the low elevation coastal zones around the world. Of these cities, 64 per cent are in developing regions; Asia alone accounts for more than half of the most vulnerable cities, followed by Latin America and the Caribbean (27 per cent) and Africa (15 per cent). Two-thirds of these cities are in Europe; almost one-fifth of all cities in North America are in low elevation coastal zones.
- Japan, with less than 10 per cent of its cities in low elevation zones, has an urban population of 27 million inhabitants at risk, more than the urban population at risk in North America, Australia and New Zealand combined.
- In the industrialized, developed world, up to 86 per cent of the populations living in low elevation coastal zones are urban dwellers.
- Globally, coastal zones are the most urbanized ecosystems, with 65 per cent of their inhabitants residing in urban areas; Europe, North America, Oceania, and Latin America having the most urbanized coastal areas and with more than 80 per cent of the population along coastlines living in cities.
- In the developed world (including Japan), 35 of the 40 largest cities are either coastal or situated along a river bank. In Europe, rivers have played a more important role in determining the growth and importance of a city than the sea; more than half of the 20 largest cities in the region developed along river banks.
- The Organisation for Economic Cooperation and Development (OECD) found that the populations of cities like Mumbai, Shanghai, Miami, New York City, Alexandria, and New Orleans will be most exposed to surge-induced flooding in the event of sea level rise.
- Port cities whose assets are most exposed to rising sea levels are located mainly in three countries – the United States, Japan and the Netherlands – and include New York City, Tokyo and Amsterdam.

¹ The Gini coefficient is the most widely used measure to determine the extent to which the distribution of income or consumption among individuals or households deviates from a perfectly equal distribution. A Gini coefficient of 0 indicates perfect equality; Whereas a Gini coefficient of 1 indicates perfect inequality.