United Nations | Department of Economic and Social Affairs

# World Urbanization Prospects

## The 2018 Revision

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ST/ESA/SER.A/420

**Department of Economic and Social Affairs**
Population Division

# World Urbanization Prospects
# The 2018 Revision

United Nations
New York, 2019

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## Notes

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The term "country" as used in this report also refers, as appropriate, to territories or areas.

This report is available in electronic format on the Division's website at www.unpopulation.org. For further information about this report, please contact the Population Division, Department of Economic and Social Affairs, United Nations, Two United Nations Plaza, DC2-1950, New York, 10017, USA; phone: +1 212-963-3209; email: population@un.org.

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## PREFACE

This report presents the results of the official United Nations estimates and projections of urban and rural populations for 233 countries and areas of the world and for close to 1,900 urban settlements with 300,000 inhabitants or more in 2018, as published in *World Urbanization Prospects: The 2018 Revision*. The data in this revision are consistent with the total populations estimated and projected according to the medium variant of the *2017 Revision* of the United Nations global population estimates and projections, published in *World Population Prospects: The 2017 Revision*. This revision updates and supersedes previous estimates and projections published by the United Nations.

Other products presenting the results of the *2018 Revision* include a Highlights publication.[1] a methodological report,[2] among others. In preparing the *2018 Revision*, particular attention was given to the production of detailed documentation on the data sources and definitions used at the country level, as well as for cities and urban agglomerations. The full metadata compiled in this regard are accessible on the Population Division's website.[3] The site also includes useful figures and maps illustrating the results obtained.

Responsibility for the *2018 Revision* rests with the Population Division. In preparing the 2018 revision, the Population Division relied on the collaboration of the Statistics Division of the Department of Economic and Social Affairs of the United Nations Secretariat; its *United Nations Demographic Yearbook* and its accompanying databases have provided access to official national population statistics used in the preparation of the 2018 revision. The Population Division also acknowledges the use of information accessible via the website citypopulation.de and the support of national statistical offices that made available data and reports from recent censuses and surveys. The Population Division is grateful for the contributions made by all these entities.

This report and/or the underlying datasets were prepared by a team led by François Pelletier, that included Lina Bassarsky, Danan Gu, Sara Hertog, Mun Sim Lai, Cheryl Sawyer, Thomas Spoorenberg and Guangyu Zhang. Igor Ribeiro contributed programming and data processing, and Neena Koshy provided formatting and editorial support. Frank Swiaczny provided comments and inputs on the draft report.

This publication is accessible on the website of the Population Division at www.unpopulation.org. For further information about the 2018 Revision, please contact the Population Division, Department of Economic and Social Affairs, United Nations, Two United Nations Plaza, DC2-1950, New York, NY 10017, USA; tel.: +1 212-963-3209; email: population@un.org.

[1] United Nations (2019). *World Urbanization Prospects 2018: Highlights* (ST/ESA/SER.A/421).
[2] United Nations (2018a). *World Urbanization Prospects: The 2018 Revision, Methodology*. Working Paper No. ESA/P/WP.252.
[3] http://esa.un.org/unpd/wup/index.htm

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## EXPLANATORY NOTES

**The following symbols have been used in the tables throughout this report:**

Three dots (..) indicate that data are not available or are not reported separately.
An em dash (—) indicates that the value is zero (magnitude zero).
A minus sign (-) before a figure indicates a decrease.
A full stop (.) is used to indicate decimals.
Years given refer to 1 July.
Use of a hyphen (-) between years, for example, 1995-2000, signifies the full period involved, from 1 July of the first year to 1 July of the second year.
Numbers and percentages in tables do not necessarily add to totals because of rounding.

**References to countries, territories and areas:**

The designations employed and the material in this publication do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory or area or its authorities, or concerning the delimitation of its frontiers or boundaries.

The designation "more developed" and "less developed" regions are intended for statistical purposes and do not express a judgment about the stage reached by a particular country or area in the development process. The term "country" as used in this publication also refers, as appropriate, to territories or areas.

More developed regions comprise all regions of Europe plus Northern America, Australia/New Zealand and Japan. Less developed regions comprise all regions of Africa, Asia (excluding Japan), and Latin America and the Caribbean as well as Melanesia, Micronesia and Polynesia. Countries or areas in the more developed regions are designated as "developed countries". Countries or areas in the less developed regions are designated as "developing countries".

The group of least developed countries, as defined by the United Nations General Assembly in its resolutions (59/209, 59/210, 60/33, 62/97, 64/L.55, 67/L.43, 64/295 and 68/18) included 47 countries in June 2017: 33 in Africa, 9 in Asia, 4 in Oceania and one in Latin America and the Caribbean. Those 47 countries are: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, São Tomé and Príncipe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, Sudan, Timor-Leste, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu, Yemen and Zambia. These countries are also included in the less developed regions.

The group denominated "other less developed countries" comprises all countries in the less developed regions minus the least developed countries.

The country classification by income level is based on 2016 GNI per capita from the World Bank.

The term "sub-Saharan Africa" is used to designate the countries of Africa excluding those of Northern Africa.

Countries and areas are grouped into six geographic regions designated as: Africa; Asia; Europe; Latin America and the Caribbean; Northern America, and Oceania. These regions are further divided into 21 geographic subregions.

The names and composition of geographical areas follow those presented in "Standard country or area codes for statistical use" (ST/ESA/STAT/SER.M/49/Rev.4) online version, available at http://unstats.un.org/unsd/methods/m49/m49.htm.

Names of cities or urban agglomerations are presented in their original language, following the names used by National Statistical Offices or the United Nations Demographic Yearbook. If cities have established alternative names or English names, those names are presented in brackets. When necessary, the administrative subdivision to which a city belongs is appended to the city name to identify it unambiguously.

For convenience, the term "growth rate" is used in this report interchangeably with the term "rate of change" that is neutral in respect to either growth or decline.

**The following abbreviations are used in this publication:**

| | |
|---|---|
| DESA | Department of Economic and Social Affairs |
| GDP | Gross domestic product |
| GNI | Gross national income |
| GNP | Gross national product |
| IEA | International Energy Agency |
| LDCs | Least developed countries |
| M.M.A. | Major Metropolitan Area |
| MOCA | Ministry of Civil Affairs |
| NBSC | National Bureau of Statistics of China |
| OECD | Organisation for Economic Co-operation and Development |
| PAU | Political-administrative unit |
| SAR | Special Administrative Region |

## CLASSIFICATION OF COUNTRIES BY GEOGRAPHIC REGION, INCOME GROUP AND GEOGRAPHIC SUBREGION OF THE WORLD

### Africa

*Eastern Africa*

Burundi
Comoros
Djibouti
Eritrea
Ethiopia
Kenya
Madagascar
Malawi
Mauritius[4]
Mayotte
Mozambique
Réunion
Rwanda
Seychelles
Somalia
South Sudan
Uganda
United Republic of Tanzania[6]
Zambia
Zimbabwe

*Middle Africa*

Angola
Cameroon
Central African Republic
Chad
Congo
Democratic Republic of the Congo
Equatorial Guinea
Gabon
São Tomé and Príncipe

*Northern Africa*

Algeria
Egypt
Libya
Morocco
Sudan
Tunisia
Western Sahara

*Southern Africa*

Botswana
Eswatini
Lesotho
Namibia
South Africa

*Western Africa*

Benin
Burkina Faso
Cabo Verde
Côte d'Ivoire
Gambia
Ghana
Guinea
Guinea-Bissau
Liberia
Mali
Mauritania
Niger
Nigeria
Saint Helena[5] *
Senegal
Sierra Leone
Togo

NOTE: Countries with a population of less than 90,000 in 2018 are indicated by an asterisk (*).

[4] Including Agalega, Rodrigues, and Saint Brandon.
[5] Including Ascension, and Tristan da Cunha.
[6] Including Zanzibar.

**CLASSIFICATION OF COUNTRIES** (*continued*)

**Asia**

| *Eastern Asia* | *South-Central Asia*[7] | *South-Eastern Asia* | *Western Asia* |
|---|---|---|---|
| | *Central Asia* | | |
| China[8] | Kazakhstan | Brunei Darussalam | Armenia |
| China, Hong Kong SAR[9] | Kyrgyzstan | Cambodia | Azerbaijan[10] |
| China, Macao SAR[11] | Tajikistan | Indonesia | Bahrain |
| China, Taiwan Province of China | Turkmenistan | Lao People's Democratic Republic | Cyprus[12] |
| Democratic People's Republic of Korea | Uzbekistan | Malaysia[14] | Georgia[13] |
| Japan | | Myanmar | Iraq |
| Mongolia | *Southern Asia* | Philippines | Israel |
| Republic of Korea | | Singapore | Jordan |
| | Afghanistan | Thailand | Kuwait |
| | Bangladesh | Timor-Leste | Lebanon |
| | Bhutan | Viet Nam | Oman |
| | India | | Qatar |
| | Iran (Islamic Republic of) | | Saudi Arabia |
| | Maldives | | State of Palestine[15] |
| | Nepal | | Syrian Arab Republic |
| | Pakistan | | Turkey |
| | Sri Lanka | | United Arab Emirates |
| | | | Yemen |

[7] The geographic subregions of Southern Asia and Central Asia are combined into South-Central Asia.
[8] For statistical purposes, the data for China do not include Hong Kong and Macao, Special Administrative Regions (SAR) of China, and Taiwan Province of China.
[9] As of 1 July 1997, Hong Kong became a Special Administrative Region (SAR) of China.
[10] Including Nagorno-Karabakh.
[11] As of 20 December 1999, Macao became a Special Administrative Region (SAR) of China.
[12] Refers to the whole country.
[13] Including Abkhazia and South Ossetia.
[14] Including Sabah and Sarawak.
[15] Including East Jerusalem.

CLASSIFICATION OF COUNTRIES (*continued*)

## Europe

| *Eastern Europe* | *Northern Europe* | *Southern Europe* | *Western Europe* |
|---|---|---|---|
| Belarus | Channel Islands[16] | Albania | Austria |
| Bulgaria | Denmark | Andorra* | Belgium |
| Czechia | Estonia | Bosnia and Herzegovina | France |
| Hungary | Faeroe Islands* | Croatia | Germany |
| Poland | Finland[17] | Gibraltar* | Liechtenstein* |
| Republic of Moldova[18] | Iceland | Greece | Luxembourg |
| Romania | Ireland | Holy See[19] * | Monaco* |
| Russian Federation | Isle of Man* | Italy | Netherlands |
| Slovakia | Latvia | Malta | Switzerland |
| Ukraine[20] | Lithuania | Montenegro | |
| | Norway[21] | Portugal | |
| | Sweden | San Marino* | |
| | United Kingdom of Great Britain and Northern Ireland | Serbia[22] | |
| | | Slovenia | |
| | | Spain[23] | |
| | | The former Yugoslav Republic of Macedonia[24] | |

[16] Refers to Guernsey, and Jersey.
[17] Including Åland Islands.
[18] Including Transnistria.
[19] Refers to the Vatican City State.
[20] Including Crimea.
[21] Including Svalbard and Jan Mayen Islands.
[22] Including Kosovo.
[23] Including Canary Islands, Ceuta and Melilla.
[24] Also referred to as TFYR Macedonia.

**CLASSIFICATION OF COUNTRIES** (*continued*)

## Latin America and the Caribbean

*Caribbean*

Anguilla*
Antigua and Barbuda
Aruba
Bahamas
Barbados
British Virgin Islands*
Caribbean Netherlands[25]*
Cayman Islands*
Cuba
Curaçao
Dominica*
Dominican Republic
Grenada
Guadeloupe[27]
Haiti
Jamaica
Martinique
Montserrat*
Puerto Rico
Saint Kitts and Nevis*
Saint Lucia
Saint Vincent and the Grenadines
Sint Maarten (Dutch part)*
Trinidad and Tobago
Turks and Caicos Islands*
United States Virgin Islands

*Central America*

Belize
Costa Rica
El Salvador
Guatemala
Honduras
Mexico
Nicaragua
Panama

*South America*

Argentina
Bolivia (Plurinational State of)
Brazil
Chile
Colombia
Ecuador
Falkland Islands (Malvinas)*[26]
French Guiana
Guyana
Paraguay
Peru
Suriname
Uruguay
Venezuela (Bolivarian Rep. of)

[25] Refers to Bonaire, Saba and Sint Eustatius.
[26] A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).
[27] Including Saint-Barthélemy and Saint-Martin (French part).

CLASSIFICATION OF COUNTRIES (*continued*)

## Northern America

Bermuda*
Canada
Greenland*
Saint Pierre and Miquelon*
United States of America

## Oceania

| *Australia/New Zealand* | *Melanesia* | *Micronesia* | *Polynesia* |
|---|---|---|---|
| Australia[28] | Fiji | Guam | American Samoa* |
| New Zealand | New Caledonia | Kiribati | Cook Islands* |
| | Papua New Guinea | Marshall Islands* | French Polynesia |
| | Solomon Islands | Micronesia (Federated States of) | Niue* |
| | Vanuatu | Nauru* | Samoa |
| | | Northern Mariana Islands* | Tokelau* |
| | | Palau* | Tonga |
| | | | Tuvalu* |
| | | | Wallis and Futuna Islands* |

## Sub-Saharan Africa

| | | | | |
|---|---|---|---|---|
| Angola | Côte d'Ivoire | Guinea | Mozambique | Somalia |
| Benin | Democratic Republic of the Congo | Guinea-Bissau | Namibia | South Africa |
| Botswana | Djibouti | Kenya | Niger | South Sudan |
| Burkina Faso | Equatorial Guinea | Lesotho | Nigeria | Togo |
| Burundi | Eritrea | Liberia | Réunion | Uganda |
| Cameroon | Eswatini | Madagascar | Rwanda | United Republic of Tanzania |
| Cabo Verde | Ethiopia | Malawi | Saint Helena | Zambia |
| Central African Republic | Gabon | Mali | São Tomé and Príncipe | Zimbabwe |
| Chad | Gambia | Mauritania | Senegal | |
| Comoros | Ghana | Mauritius | Seychelles | |
| Congo | | Mayotte | Sierra Leone | |

[28] Including Christmas Island, Cocos (Keeling) Islands, and Norfolk Island.

**CLASSIFICATION OF COUNTRIES** (*continued*)

## Least developed countries

Afghanistan
Angola
Bangladesh
Benin
Bhutan
Burkina Faso
Burundi
Cambodia
Central African Republic
Chad
Comoros
Democratic Republic of the Congo
Djibouti
Eritrea
Ethiopia
Gambia
Guinea
Guinea-Bissau
Haiti
Kiribati
Lao People's Democratic Republic
Lesotho
Liberia
Madagascar
Malawi
Mali
Mauritania
Mozambique
Myanmar
Nepal
Niger
Rwanda
São Tomé and Príncipe
Senegal
Sierra Leone
Solomon Islands
Somalia
South Sudan
Sudan
Timor-Leste
Togo
Tuvalu
Uganda
United Republic of Tanzania
Vanuatu
Yemen
Zambia

CLASSIFICATION OF COUNTRIES (*continued*)

## High-income countries

Andorra
Antigua and Barbuda
Aruba
Australia
Austria
Bahamas
Bahrain
Barbados
Belgium
Bermuda
British Virgin Islands
Brunei Darussalam
Canada
Cayman Islands
Channel Islands
Chile
China, Hong Kong SAR
China, Macao SAR
China, Taiwan Province of China
Curaçao
Cyprus
Czechia
Denmark
Estonia
Faroe Islands
Finland
France
French Polynesia
Germany
Gibraltar
Greece
Greenland
Guam
Hungary
Iceland
Ireland
Isle of Man
Israel
Italy
Japan
Kuwait
Latvia
Liechtenstein
Lithuania
Luxembourg
Malta
Monaco
Netherlands
New Caledonia
New Zealand
Northern Mariana Islands
Norway
Oman
Palau
Poland
Portugal
Puerto Rico
Qatar
Republic of Korea
Saint Kitts and Nevis
San Marino
Saudi Arabia
Seychelles
Singapore
Sint Maarten (Dutch part)
Slovakia
Slovenia
Spain
Sweden
Switzerland
Trinidad and Tobago
Turks and Caicos Islands
United Arab Emirates
United Kingdom of Great Britain and Northern Island
United States of America
United States Virgin Islands
Uruguay

CLASSIFICATION OF COUNTRIES (*continued*)

## Upper-middle-income countries

Albania
Algeria
American Samoa
Argentina
Azerbaijan
Belarus
Belize
Bosnia and Herzegovina
Botswana
Brazil
Bulgaria
China
Colombia
Costa Rica
Croatia
Cuba
Dominica
Dominican Republic
Ecuador
Equatorial Guinea
Fiji
Gabon
Grenada
Guyana
Iran (Islamic Republic of)
Iraq
Jamaica
Kazakhstan
Lebanon
Libya
Malaysia
Maldives
Marshall Islands
Mauritius
Mexico
Montenegro
Namibia
Nauru
Panama
Paraguay
Peru
Romania
Russian Federation
Saint Lucia
Saint Vincent and the Grenadines
Samoa
Serbia
South Africa
Suriname
The former Yugoslav Republic of Macedonia
Thailand
Tonga
Turkey
Turkmenistan
Tuvalu
Venezuela (Bolivarian Rep. of)

## Lower-middle-income countries

Angola
Armenia
Bangladesh
Bhutan
Bolivia (Plurinational State of)
Cabo Verde
Cambodia
Cameroon
Congo
Côte d'Ivoire
Djibouti
Egypt
El Salvador
Eswatini
Georgia
Ghana
Guatemala
Honduras
India
Indonesia
Jordan
Kenya
Kiribati
Kyrgyzstan
Lao People's Democratic Republic
Lesotho
Mauritania
Micronesia (Fed. States of)
Mongolia
Morocco
Myanmar
Nicaragua
Nigeria
Pakistan
Papua New Guinea
Philippines
Republic of Moldova
Sao Tome and Principe
Solomon Islands
Sri Lanka
State of Palestine
Sudan
Syrian Arab Republic
Tajikistan
Timor-Leste
Tunisia
Ukraine
Uzbekistan
Vanuatu
Viet Nam
Yemen
Zambia

**CLASSIFICATION OF COUNTRIES** (*continued*)

## Low-income countries

Afghanistan
Benin
Burkina Faso
Burundi
Central African Republic
Chad
Comoros
Democratic People's Republic of Korea
Democratic Republic of the Congo
Eritrea
Ethiopia
Gambia
Guinea
Guinea-Bissau
Haiti
Liberia
Madagascar
Malawi
Mali
Mozambique
Nepal
Niger
Rwanda
Senegal
Sierra Leone
Somalia
South Sudan
Togo
Uganda
United Republic of Tanzania
Zimbabwe

## EXECUTIVE SUMMARY

The Population Division of the Department of Economic and Social Affairs of the United Nations has been issuing for several decades revised and updated estimates and projections of the urban and rural populations of all countries in the world and of their major urban settlements. This note presents the main findings of the *2018 Revision* of *World Urbanization Prospects* which are consistent with the size of the total population of each country as estimated or projected in the *2017 Revision* of *World Population Prospects* (United Nations, 2017).

The *2018 Revision* presents estimates and projections of the total, urban and rural populations of the world for the period 1950-2050. The results are shown for development groups, six geographic regions (i.e., Africa, Asia, Europe, Latin America and the Caribbean, Northern America and Oceania), income groups and 21 geographic subregions. Data are further presented for 233 countries or areas of the world. The 2018 revision also provides estimates and projections of the population of urban agglomerations with 300,000 inhabitants or more in 2018 for the period 1950-2035. Estimates of the proportion of the population living in urban areas and the population of cities are based on national statistics. Population censuses are the most commonly used sources of data on the proportion urban and the population of cities. However, in some countries, the data used as the basis for estimation are obtained from population registers or administrative statistics.

Globally, more people live in urban areas than in rural areas, with 55 per cent of the world's population residing in urban areas in 2018. In 1950, 30 per cent of the world's population was urban, and by 2050, 68 per cent of the world's population is projected to be urban. There is significant diversity in the urbanization levels reached by different geographic regions. The most urbanized geographic regions include Northern America (82 per cent living in urban areas in 2018), Latin America and the Caribbean (81 per cent), Europe (74 per cent) and Oceania (68 per cent. The level of urbanization in Asia is now approximating 50 per cent. In contrast, Africa remains mostly rural, with 43 per cent of its population living in urban areas.

Close to half of the world's urban dwellers reside in relatively small settlements of less than 500,000 inhabitants, while around one in eight live in 33 megacities with more than 10 million inhabitants. Several decades ago most of the world's largest urban agglomerations were found in the more developed regions, but today's large cities are concentrated in the global South. Between 1990 and 2018, the world's cities with more than 300,000 inhabitants grew at an average annual rate of 1.8 per cent. As the world continues to urbanize, sustainable development depends increasingly on the successful management of urban growth, especially in low-income and lower-middle-income countries where the most rapid urbanization is expected between now and 2050. Integrated policies to improve the lives of both urban and rural dwellers are needed, strengthening the linkages between urban and rural areas and building on their existing economic, social and environmental ties.

In 1950, 59 per cent of the population in high-income countries already lived in urban areas, and this share is expected to rise further, from 81 per cent today to nearly 88 per cent in 2050. By contrast, in the upper-middle-income countries of today, the percentage of population living in urban areas was only 22 per cent in 1950. However, upper-middle-income countries have experienced a relatively fast pace of urbanization since 1950, and the share of urban population is expected to rise from 67 per cent today to 83 per cent urban by 2050. While the high-income countries have been highly urbanized for several decades, upper-middle-income countries have experienced the fastest pace of urbanization since 1950. In the lower-middle-income countries the pace of urbanization has been slower. Nevertheless, this group of countries is expected to experience faster urbanization than others in the coming decades. In 2018, the proportion of the population living in urban areas was 41 per cent in lower-middle-income countries and 32 per cent in low-income countries. By 2050, these countries are expected to reach, on average, 59 per cent and 50 per cent urban, respectively.

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## INTRODUCTION AND POLICY IMPLICATIONS

The future of the world's population is urban.[29] With more than half of the world's people living in urban areas (55 per cent, up from 30 per cent in 1950), urbanization determines the spatial distribution of the world's population and is one of the four demographic mega-trends, with the growth of the global population, population ageing, and international migration. Estimates and projections of urbanization introduced in this report indicate that the future growth of the human population can be accounted for almost entirely by a growing number of city dwellers. By mid-century, roughly two thirds (68 per cent) of the world's population will be living in urban areas. The global urban population is projected to grow by 2.5 billion urban dwellers between 2018 and 2050, with nearly 90 per cent of the increase concentrated in Asia and Africa. In many regions, the share of population living in cities, as well as the number and size of cities, will continue to grow, driven by a combination of factors, including a surplus of births over deaths in urban areas, migration from rural to urban areas and from abroad (Lerch, 2017) as well as the urbanization of formerly rural areas. Urbanization is also transforming the lives of those living in the rural areas around cities. Cities are major gateways and destinations for internal and international migrants and migration needs to be integrated into the strategic planning and management of cities and urban systems.

Urbanization is closely related to the three dimensions of sustainable development: economic, societal and environmental (see Box I.1). Well-managed urbanization (among other factors), informed by an understanding of population trends over the long run, can help to maximize the benefits of agglomeration while minimizing environmental degradation and other potential adverse impacts of a growing number of city dwellers, especially in low-income and lower-middle-income countries where the most rapid urbanization is expected between now and 2050. Unplanned or inadequately managed urban expansion, in combination with unsustainable production and consumption patterns and a lack of capacity of public institutions to manage urbanization, can impair sustainability due to urban sprawl, pollution and environmental degradation. In recognition of their economic, social and environmental interdependence, the linkages that cities and small towns establish with surrounding rural areas should be strengthened. They can facilitate sustainable development in both urban and rural areas by delivering services and infrastructure improvements and expanding opportunities for off-farm employment to rural dwellers.[30] Planning for the delivery of services to urban and rural dwellers should include consideration of different scenarios for the future growth of urban centres and surrounding rural settlements.

Urbanization has generally been a positive force for economic growth, poverty reduction and human development. Cities are places where entrepreneurship and technological innovation can thrive, thanks to a diverse and well-educated labour force and a high concentration of businesses. Urban areas also serve as hubs for development, where the proximity of commerce, government and transportation provide the infrastructure necessary for sharing knowledge and information. Urban dwellers are often younger, more literate and more highly educated, are more likely to have access to decent work, adequate housing and social services, and can enjoy enhanced opportunities for cultural and political participation as well as gender equality (Cohen, 2006). Economies of scale in urban areas and technological innovation can facilitate the sustainable provision of infrastructure such as roads, piped water and electricity, as well as

[29] The Commission on Population and Development addressed urbanization in its 51st session and took note of the report of the Secretary General on World Demographic Trends (E/CN.9/2018/5). The thematic report of the Secretary General on Sustainable Cities, Human Mobility and International Migration (E/CN.9/2018/2) contains further policy recommendations.

[30] See also the New Urban Agenda, adopted in October 2016 at the United Nations Conference on Housing and Sustainable Urban Development (Habitat III) and endorsed by the General Assembly in December 2016 (A/RES/71/256). The 2018 World Urban Forum (WUF9) organized by UN-Habitat in Kuala Lumpur, in February 2018, focused on the implementation of the New Urban Agenda and mobilized urban actors in national governments, subnational and local governments, civil society, private sector and academia to share knowledge and solutions for sustainable urban development; facilitate stakeholders' inputs to monitoring and reporting on the New Urban Agenda and facilitate strong multi-stakeholder partnerships.

basic services such as education and health care, all of which are essential to achieve the Sustainable Development Goals.

Government policies for planning and managing sustainable urban growth can help ensure that the benefits of urbanization are shared equitably. Sustainable Development Goal 11 is a commitment to making cities inclusive, safe, resilient and sustainable, and participatory planning can play an important role in the implementation. Policies that aim to restrict rural-to-urban migration are generally ineffective at forestalling city growth and can even result in economic, social and environmental harm. Sustainable urbanization requires that cities generate adequate income and decent employment opportunities; provide the necessary infrastructure for water and sanitation, energy, transportation and communication; ensure equitable access to housing and services; minimize the number of people living in slums; and preserve a healthy environment within the city and surrounding areas. To ensure that the benefits of urbanization are shared and that no one is left behind, policies to manage the urban growth need to consider the needs of women, including for equal access to services, property rights and political participation; youth, including policies to provide education and employment; older persons, including policies to promote healthy ageing; persons with disabilities, including policies and laws on accessible housing, public infrastructure, and transport; and focus on the urban poor and other vulnerable groups, including indigenous people. Fulfilling their needs allows them to play a positive economic, social, cultural etc. role in urbanization and is a powerful tool to manage sustainable urbanization.

Data on global trends in urbanization and city growth are critical for evidence-based policy making and planning.[31] The availability of high quality, accessible, timely and reliable demographic data is essential for planning and implementing the 2030 Agenda for Sustainable Development. Improvements in civil registration and health information systems, alternative sources of information such as "big data", the use of remote-sensing and satellite imagery and georeferencing as a standard practice of data collection, and broad participation in the 2020 round of censuses are essential elements to broaden evidence on urbanization. Assessing current and future needs with respect to urban growth and for setting policy priorities to promote inclusive and equitable urban and rural development should be based on up to date and coherent population estimates and projections. In order to systematically track levels and trends in urbanization around the world, contributing to the evidence base on urbanization, the Population Division of the Department of Economic and Social Affairs of the United Nations has issued for several decades revised and updated estimates and projections of the urban and rural populations of all countries in the world and of their major urban settlements.

This report presents the results of the *2018 Revision* of *World Urbanization Prospects.*[32] The dataset of the *World Urbanization Prospects*, prepared by the Population Division of the Department of Economic and Social Affairs of the United Nations, contains the latest estimates of the urban and rural populations of 233 countries or areas from 1950 to 2018 and projections to 2050, as well as estimates of population size from 1950 to 2018 and projections to 2035 for all urban settlements with 300,000 inhabitants or more in 2018. Recognizing the importance of smaller cities and towns, this latest revision provides population estimates and projections for close to 1,900 urban settlements. The annex tables in this report provide data on the estimated and projected urban and rural populations, the percentage of the population that lives in urban areas and the average annual rate of change of the percentage urban for 233 countries or areas of the world. The tables also show the rank and annual growth rate of urban agglomerations with 5 million inhabitants or more in 2018, while focusing on the time-frame 1990-2030.

[31] See also the report of the Secretary General on Actions for the further implementation of the Programme of Action of the International Conference on Population and Development: monitoring of population programmes, focusing on sustainable cities, human mobility and international migration (E/CN.9/2018/3).

[32] The highlights, descriptions of the data, methodology, and complete data tables representing all countries and areas, regions, subregions, income groups, development groups, and periods are available at https://esa.un.org/unpd/wup/.

## A. Urbanization and sustainable development

Urbanization is a complex socio-economic process that transforms the built environment, converting formerly rural into urban settlements, while also shifting the spatial distribution of a population from rural to urban areas. It includes changes in dominant occupations, lifestyle, culture and behaviour, and thus alters the demographic and social structure of both urban and rural areas (Montgomery and others, 2004). A major consequence of urbanization is a rise in the number, land area and population size of urban settlements and in the number and share of urban residents compared to rural dwellers. Urbanization is shaped by spatial and urban planning as well as by public and private investments in buildings and infrastructure. An increasing share of economic activity and innovation becomes concentrated in cities, and cities develop as hubs for the flow of transport, trade and information. Cities also become places where public and private services of the highest quality are available and where basic services are often more accessible than in rural areas.

Urbanization also alters the demographic and social structure of both urban and rural areas. Historically, the urban transition has been linked closely to economic development. In Europe and Northern America, rapid urbanization during the nineteenth and twentieth centuries was accompanied by industrialization and rapid economic growth (Bairoch, 1988). The urban transition and economic growth have been linked in part because economic development fuels urbanization. People are drawn to cities that offer varied opportunities for education and employment, particularly in the industry and services sectors. Urbanization, in turn, has generally been a positive force for economic growth, poverty reduction and human development. Approximately 80 per cent of global gross domestic product (GDP) is generated in cities (Grübler and Fisk, 2013).

Recent trends in developing regions, particularly in sub-Saharan Africa, have challenged long held notions about the association between urbanization and economic growth (Fay and Opal, 1999). While a dearth of data on urbanization in the region complicates any inference about trends (Satterthwaite, 2010), the available evidence suggests that the urbanization process continued in sub-Saharan Africa between the 1970s and 2000, despite economic contraction in the region over that period (United Nations, 2013).

Demographers note that the urban transition observed in sub-Saharan Africa in recent decades, while not consistent with economic theories of urbanization, mirrors the demographic transition experienced in the region (de Vries, 1990; Dyson, 2011). The demographic theory of urban transition starts from a pre-transition period, characterized by high birth and death rates, with a population that is mostly rural and mortality rates that tend to be much higher in urban areas compared to those in rural areas (owing to the heightened risk of death from infectious diseases that spread easily in densely populated urban areas with poor sanitation). During this period, urban birth rates tend to be lower than urban death rates such that the urban population is sustained only by continuous replenishment through rural-to-urban migration. With improvements to public health, death rates begin to decline, faster in urban areas than in rural ones, and eventually the number of urban deaths falls below the number of urban births resulting in urban population growth caused not only by rural-to-urban migration, but also due to natural increase as well. In most regions, including in sub-Saharan Africa, the process of urbanization has occurred in parallel to declining mortality and fertility rates characteristic for the demographic transition, lending support to the notion that the urban transition is better explained as a demographic phenomenon than strictly as an economic one (Dyson, 2011).

Addressing inequalities is key to achieving sustainable development (Gaigbe-Togbe, 2015). Urban slum dwellers face greater exposure to environmental hazards, such as pollution, and suffer increased health risks as a result. Over the last 15 years, countries have steadily improved urban slums, characterized by housing that is non-durable or overcrowded, or that lacks access to improved water and sanitation or security against eviction, by managing to move millions of people out of substandard conditions and providing them with adequate housing. As a result, between 2000 and 2014, the proportion of the world's urban population living in slums declined by 20 per cent (from 28.4 to 22.8 per cent). However, the rate of

new home construction lagged far behind the rate of urban population growth, and the number of people living in slums actually increased from 807 million to 883 million over this period. The majority of those living in slums are located in three regions: Eastern and South-Eastern Asia (332 million), Central and Southern Asia (197 million) and sub-Saharan Africa (189 million) (United Nations, 2018b). Evidence from 191 Demographic and Health Surveys, conducted in countries of Africa, Asia and Latin America undertaken over the last several years, shows that infants and children residing in slums have substantially greater incidence of diarrhoeal illness than their urban peers and are less likely to survive to their fifth birthdays (Fink, Gunther and Hill, 2014). The urban poor in developed countries also faces marked disparities in health and well-being.

Furthermore, much of the increase in the numbers of urban poor is taking place in locations that are highly vulnerable to natural disasters and are expected to experience the greatest impact of climate change, such as low-elevation coastal zones and arid regions known as dry lands (Balk and others, 2009; Gu and others, 2015; The World Bank, 2016). Nearly 60 per cent of cities with 300,000 inhabitants today are at high risk of exposure to at least one type of six natural disasters (cyclones, droughts, floods, earthquakes, landslides, and volcanic eruptions) and the number is growing (United Nations, 2018c). Seasonal, temporary and permanent migration is already among the strategies that households utilize when faced with food and livelihood insecurity associated with climate variability, and climate-related migration could become more prevalent in the future with the anticipated increase in frequency and intensity of adverse climate events (Foresight, 2011; United Nations University, 2012; The World Bank, 2018).

The future growth of cities and concomitant appropriation of land and natural resources will determine success towards an environmentally sustainable future. In some cities, unplanned or inadequately managed urban expansion leads to rapid sprawl, pollution, and environmental degradation, together with unsustainable production and consumption patterns. Today's cities are growing twice as fast in terms of land area as they are in terms of population (Angel and others, 2011a). Consequently, projections indicate that future trends in urbanization could produce a near tripling in the global urban land area between 2000 and 2030 (Angel and others, 2011b; Seto, Guneralp and Hutyra, 2012), as hundreds of thousands of additional square kilometres are developed to urban levels of density. Such urban expansion threatens to destroy habitats in key biodiversity hotspots and contributes to carbon emissions associated with tropical deforestation and land use change.

Environmental sustainability is additionally challenged by the consumption patterns that prevail in urban settings. Owing in part to their higher incomes, urban dwellers tend to consume more per capita than rural dwellers. Today's cities account for between 71 and 76 per cent of CO2 emissions and between 67 and 76 per cent of global energy use (Seto and others, 2014; UN-Habitat, 2011). However, controlled for income level, urban living appears to be more sustainable (Dodman, 2009; Satterthwaite, 2011) and high-density areas tend to consume less than low-density urban areas. Evidence from Toronto, for example, indicates that energy consumption and greenhouse gas emissions are twice as high on a per capita basis in low-density suburban developments compared to the high-density urban core (Norman, MacLean and Kennedy, 2006; Hoornweg, Sugar and Gomez, 2011). However, while the loss of population in a number of cities in Western Europe, Canada and New Zealand seems in general not to affect negatively the quality of living of the population (UN-Habitat, 2012), a smaller population size can actually also favour sustainable strategies, such as the control of urban sprawl or the modernization of public services, or promote new collaborative governance with stronger citizen and local community participation (Schlappa and Neill, 2013; European Commission, 2011).

## B. Data and methods

In preparing estimates and projections of the urban population, the United Nations relies on data from national sources, reflecting varying definitions and criteria established by national authorities for both the level of urbanization, expressed as the percentage urban, and the population size of cities. The estimation and projection of the urban population is based on observed changes in the proportion of the population living in urban areas. Consequently, the quality of the estimates and projections depends on the quality of the basic information enabling the calculation of the proportion urban.[33] Such information normally consists of complete counts of both the total population in a country and the total population living in urban areas. Censuses or population registers are the most common sources of those counts.

The urban and city estimates presented in this report are based on the definitions used for statistical purposes by the countries and areas themselves – except for cases lacking clear definitions, or historical changes that prevent reconstruction of consistent time series (e.g. Netherlands, Kenya). One hundred and twenty-one of the 233 countries or areas considered use administrative criteria to distinguish between urban and rural areas. Among these, 59 countries use administrative designations as the sole criterion (table 1). In 108 cases, the criteria used to characterize urban areas include population size or population density, and in 37 cases such demographic characteristics are the sole criterion. However, the lower limit above which a settlement is considered to be urban varies considerably, ranging between 200 and 50,000 inhabitants. Economic characteristics were part of the criteria used to identify urban areas in 38 countries or areas. Criteria related to functional characteristics of urban areas, such as the existence of paved streets, water-supply systems, sewerage systems or electric lighting, were part of the definition of urban in 69 cases, but only in eight cases were such criteria used alone. Lastly, in 12 cases there was no definition or an unclear definition of what constitutes the urban environment and in 12 cases the entire population of a country or area was considered to be urban.

Despite the variety of criteria used to distinguish urban from rural areas and the resulting heterogeneity, no independent adjustment of national statistics was undertaken in this revision unless it was clear that the definitions used by a given country had changed over time in ways that would have led to inconsistencies. When applied, such adjustments typically eliminated the erratic peaks and troughs in urban growth resulting from changes in definition. Despite efforts to avoid inconsistencies within countries, it was not always possible to adjust the available data in ways that ensure consistency. In some cases, inconsistencies remain because the data needed to make the necessary adjustment were lacking. In cases where adjustment was possible, every effort was made to adjust earlier data so that they conformed to the most recent definition.

In the case of cities, across countries, definitions and criteria to delimitate cities, urban agglomerations and metropolitan areas vary. Population data are often reported for geographical areas delimited by administrative boundaries that do not coincide with the urbanized territory following other standards. Therefore, the "city proper", defined by administrative boundaries, may not include suburban areas where a substantial portion of the population working or studying in the city resides. Furthermore, in some cases, although governed by different local authorities, two or more adjacent cities may form a single urbanized area. Alternatively, administrative boundaries of some cities may cover large tracts of land primarily devoted to agriculture. Because of these problems it is advisable to base the measurement of a city's population on territorial boundaries that may differ from those established by administrative decisions. For this report two supplementary concepts have been used to improve the comparability of measurements of city populations across countries and over time. "Urban agglomeration" refers to the population contained within the contours of a contiguous territory inhabited at urban levels of residential density. "Metropolitan area" comprises an urban agglomeration and surrounding areas at a lower settlement density with strong economic and social linkages to the city.

[33] For further details, please see United Nations (2018a) at http://esa.un.org/unpd/wup/Methodology/WUP2018-Methodology.pdf.

TABLE 1. NUMBER OF COUNTRIES ACCORDING TO THE CRITERIA USED IN DEFINING URBAN AREAS, *2018 REVISION*

| *Number and type of criteria* | | *Number of countries or areas using criteria* | *Percentage (n=233)* | *Number of countries or areas using criteria in combination with additional criteria* | *Percentage (n=233)* |
|---|---|---|---|---|---|
| First criteria | Administrative | 59 | 25.3 | 121 | 51.9 |
| | Economic | — | — | 38 | 16.3 |
| | Population size/density | 37 | 15.9 | 108 | 46.4 |
| | Urban characteristics | 8 | 3.4 | 69 | 29.6 |
| 2 criteria | Administrative and economic | — | — | | |
| | Administrative and population size/density | 17 | 7.3 | | |
| | Administrative and urban characteristics | 20 | 8.6 | | |
| | Economic and population size/density | 9 | 3.9 | | |
| | Economic and urban characteristics | — | — | | |
| | Population size/density and urban characteristics | 20 | 8.6 | | |
| 3 criteria | Administrative, economic and population size/density | 4 | 1.7 | | |
| | Administrative, economic and urban characteristics | — | — | | |
| | Administrative, urban characteristics and population size/density | 10 | 4.3 | | |
| | Economic, urban characteristics and population size/density | 14 | 6.0 | | |
| 4 criteria | Administrative, economic, population size/density and urban characteristics | 11 | 4.7 | | |
| | --- | | | | |
| | Entire population is urban | 12 | 5.2 | | |
| | No definition or unclear definition | 12 | 5.2 | | |
| | Total number of countries or areas | 233 | 100.0 | | |

In compiling information on city population size for this revision, the Population Division endeavoured to use data or estimates based on the concept of urban agglomeration or metropolitan area. When those data were not consistently available, population data that refer to the city as defined by its administrative boundaries were used. However, where administrative boundaries remain fixed for long periods of time, reliance on them can often result in an underestimation of the actual growth of a city with respect to both its territory and its population.

For a number of cities, the data available refer to two concepts: the city proper, as defined by administrative boundaries, and its metropolitan area. In those instances, the data referring to the metropolitan area were usually preferred because they are thought to approximate better the territory associated with the urban agglomeration than the data based on administrative boundaries. However, the population of the metropolitan area is also likely to be larger than that of the urban agglomeration associated with it, so an upward bias may have been introduced in specific cases. For many cities, an effort was made

to ensure that the time series of population estimates derived from national sources conformed to the same definition over time. Adjustments were made when necessary to achieve internal consistency. In some cases, the availability of data determined that the criterion on which the population of a city is based should be changed. That was the case, for example, when data on a city in terms of the urban agglomeration were available for only one or two points in time, while a longer and more consistent series of data on the population of the city proper was readily available.

TABLE 2. NUMBER OF COUNTRIES ACCORDING TO THE CRITERIA USED IN DEFINING CITY POPULATIONS, *2018 REVISION*

| *Criterion* | *Number of countries or areas using criteria* | *Number of countries or areas using criteria in combination with additional criteria* |
|---|---|---|
| City proper | 91 | 48 |
| Urban agglomeration | 74 | 45 |
| Metropolitan area | 13 | 19 |
| Capital is urban agglomeration; other cities are city proper, urban agglomerations or metropolitan areas | 27 | — |
| Capital is city proper; other cities are city proper, urban agglomerations or metropolitan areas | 10 | — |
| Capital is metropolitan area; other cities are city proper, urban agglomerations or metropolitan areas | 15 | — |
| Not defined | 2 | 2 |
| Total number of countries or areas | 232 | — |

In addition to variations in the definition of what constitutes an urban area, the data available for different countries may also vary in terms of their time reference. Because census dates are not the same for all countries, estimates of the proportion urban or of city populations derived from census data typically refer to different points in time and are not directly comparable among countries. Similarly, there is no consistency among countries with respect to the reference dates of official estimates of urban or city populations. Consequently, in order to complete the *2018 Revision* of *World Urbanization Prospects*, estimates for specific points in time had to be derived. Interpolation or extrapolation based on the data available was used to produce estimates of the proportion urban or of city populations that referred to 1 July of the relevant calendar year, starting in 1950. The most recent mid-year estimate referred to the year that preceded the reference date of the most recent data available. From that point on, the projection procedure was used to complete the time series until 2050 for the proportion urban and until 2035 for city populations.

The United Nations has developed a parsimonious and straightforward method to project the proportion urban. The method was first used in the 1970s (United Nations, 1974 and 1980) and, although it has undergone some revisions since then, the basic approach has not changed. The projection of the proportion urban is based on the projection of the urban-rural growth differential. It is assumed that the most recently observed intercensal urban-rural growth difference in each country converges to an expected global urban-rural growth difference over a period of 25 years. The method used for projecting city populations is similar to that used for urban populations. The most recent intercensal city growth rate is projected so that it

approaches linearly an expected value that is based on the city population and on the growth rate of the urban population as a whole.

The proportion of the population living in urban areas was estimated and projected by country or area for the period 1950-2050 in single-year intervals. Once values of the proportion urban at the national level were established for the 1950-2050 period, they were applied to the estimates and projections of the total national population of each country or area derived from *World Population Prospects: The 2017 Revision* (United Nations, 2017) to obtain the corresponding urban population for 1950 to 2050. Country-level estimates and projections were aggregated to obtain figures corresponding to geographic subregions, regions and the world as a whole.

# I. URBAN AND RURAL POPULATION GROWTH AND WORLD URBANIZATION PROSPECTS

This chapter provides an assessment of urban and rural population growth and levels and trends in urbanization globally and for groups of countries classified according to development groups, level of income, and geographic region. Section A presents an overview of urbanization at the global level. Section B contrasts the levels and trends in urban population for the more developed and less developed regions; section C does the same for income groups; and section D for geographic regions.

## A. OVERVIEW OF WORLD URBANIZATION TRENDS

Between 1950 and 2018, the urban population of the world grew more than four-fold, from an estimated 0.8 billion to an estimated 4.2 billion (table I.1). The average annual rate of change of the urban population during this period, estimated at 2.54 per cent, was more than 50 per cent higher than that of the world's population as a whole (1.62 per cent). Thus, between 1950 and 2018 the world's population was urbanizing rapidly, with the proportion urban rising from 30 per cent in 1950 to 55 per cent in 2018 (see box I.1 for definitions of urbanization). The rate of urbanization between 1950 and 2018, defined as the average annual rate of change of the percentage urban was 0.92 per cent per year on average. As a result of this rapid urbanization, in 2007 the population of the world became more urban than rural for the first time. The urbanization process is expected to continue for decades and an ever-increasing majority of humankind will likely be living in urban areas.

TABLE I.1. TOTAL, URBAN AND RURAL POPULATIONS AND THEIR AVERAGE ANNUAL RATES OF CHANGE, FOR THE WORLD AND DEVELOPMENT GROUPS, SELECTED YEARS AND PERIODS, 1950-2050

| | *Population (billions)* | | | | | | *Average annual rate of change (per cent)* | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Development group* | *1950* | *1970* | *1990* | *2018* | *2030* | *2050* | *1950-1970* | *1970-1990* | *1990-2018* | *2018-2030* | *2030-2050* |
| Total population | | | | | | | | | | | |
| World | 2.54 | 3.70 | 5.33 | 7.63 | 8.55 | 9.77 | 1.89 | 1.83 | 1.28 | 0.95 | 0.67 |
| More developed regions | 0.81 | 1.01 | 1.15 | 1.26 | 1.29 | 1.30 | 1.07 | 0.64 | 0.34 | 0.17 | 0.03 |
| Less developed regions | 1.72 | 2.69 | 4.18 | 6.37 | 7.26 | 8.47 | 2.23 | 2.21 | 1.50 | 1.09 | 0.77 |
| Urban population | | | | | | | | | | | |
| World | 0.75 | 1.35 | 2.29 | 4.22 | 5.17 | 6.68 | 2.95 | 2.63 | 2.18 | 1.69 | 1.28 |
| More developed regions | 0.45 | 0.67 | 0.83 | 0.99 | 1.05 | 1.12 | 2.06 | 1.04 | 0.64 | 0.46 | 0.34 |
| Less developed regions | 0.30 | 0.68 | 1.46 | 3.23 | 4.12 | 5.56 | 4.02 | 3.82 | 2.83 | 2.03 | 1.50 |
| Rural population | | | | | | | | | | | |
| World | 1.79 | 2.35 | 3.04 | 3.41 | 3.38 | 3.09 | 1.37 | 1.30 | 0.41 | -0.07 | -0.45 |
| More developed regions | 0.37 | 0.33 | 0.32 | 0.27 | 0.24 | 0.17 | -0.48 | -0.27 | -0.58 | -0.95 | -1.61 |
| Less developed regions | 1.42 | 2.01 | 2.72 | 3.14 | 3.14 | 2.92 | 1.75 | 1.52 | 0.51 | 0.00 | -0.37 |

**BOX I.1. WHAT IS URBANIZATION?**

Urbanization is a complex socio-economic process that transforms the built environment, converting formerly rural into urban settlements, while also shifting the spatial distribution of a population from rural to urban areas. It includes changes in dominant occupations, lifestyle, culture and behaviour, and thus alters the demographic and social structure of both urban and rural areas. A major consequence of urbanization is a rise in the number, land area and population size of urban settlements and in the number and share of urban residents compared to rural dwellers.

Urbanization is shaped by spatial and urban planning as well as by public and private investments in buildings and infrastructure. An increasing share of economic activity and innovation becomes concentrated in cities, and cities develop as hubs for the flow of transport, trade and information. Cities also become places where public and private services of the highest quality are available and where basic services are often more accessible than in rural areas.

The degree or level of urbanization is typically expressed as the percentage of population residing in urban areas, defined according to criteria used by national governments for distinguishing between urban and rural areas (see box III.1 for the definitions used in this report). In practice, urbanization refers both to the increase in the percentage of population residing in urban areas and to the associated growth in the number of urban dwellers, in the size of cities and in the total area occupied by urban settlements.

The growth of the world's urban population can be put in perspective by comparing dates at which major landmark sizes are reached (table I.2). The global urban population first reached 1 billion in 1959. It took 26 years to grow to 2 billion in 1985, another 17 years to reach 3 billion in 2002, and just 13 years to add the fourth billion in 2015. Urban population growth is expected to continue, such that the urban population of the world will reach 5 billion in 2028 and 6 billion in 2041. It is noteworthy that the number of years taken to attain each successive billion after 3 billion is steady at 13. As for the rural population of the world, it reached 2 billion in 1960, 3 billion in 1989, and because it is projected to begin declining after 2021, it may never reach 4 billion. These trends in the growth rates of the urban and rural populations and in the resulting urban-rural population distribution are certain to have important implications for the world's economy, for the quality of the world's environment and for the kinds of lives the world's people will lead.

Although the world's population is expected to continue to urbanize, the pace of urbanization is expected to slow in the future, with both the absolute size of the urban population and the proportion urban likely to grow less rapidly. Thus, during 2018-2030 the urban population of the world is projected to increase at an average annual rate of 1.7 per cent, much lower than in 1950-1970 (3.0 per cent), 1970-1990 (2.6 per cent) or in 1990-2018 (2.2 per cent) (table I.1, above). For the period 2030-2050, the average annual urban growth rate is expected to be even lower at 1.3 per cent. The proportion urban is also expected to rise at a slower pace: 0.7 per cent during 2018-2030 and 0.6 per cent during 2030-2050 (table I.3). By 2050 the population of the world is projected to be 68 per cent urban, with urban dwellers numbering 6.7 billion.

In contrast to the rapid rise of the world's urban population, the growth of the rural population has been slowing markedly. In 1950, seven out of every ten people on earth—1.8 billion—lived in rural areas. During the subsequent 68 years, rural population growth averaged 1.0 per cent per year, with the result that the rural population nearly doubled, reaching 3.4 billion in 2018 (table I.1). The size of the rural population is expected to peak in 2021, at just over 3.4 billion, and then to begin a slow decline. It is projected to fall to 3.1 billion by 2050, smaller than it was in the early 1990s.

TABLE I.2. MILESTONES IN WORLD TOTAL AND URBAN POPULATIONS

| | *Total population* | | | *Urban population* | | |
|---|---|---|---|---|---|---|
| *Type of data* | *Population (billions)* | *Year when reached* | *Number of years it took to increase by one billion* | *Population (billions)* | *Year when reached* | *Number of years it took to increase by one billion* |
| Estimates | 1 | 1804 | | 1 | 1959 | |
| | 2 | 1927 | 123 | 2 | 1985 | 26 |
| | 3 | 1959 | 32 | 3 | 2002 | 17 |
| | 4 | 1974 | 15 | 4 | 2015 | 13 |
| | 5 | 1986 | 12 | | | |
| | 6 | 1998 | 12 | | | |
| | 7 | 2010 | 12 | | | |
| Medium projection variant | | | | | | |
| | 8 | 2023 | 13 | 5 | 2028 | 13 |
| | 9 | 2037 | 14 | 6 | 2041 | 13 |

If the projections prove to be true, then *all* the expected world population growth during 2018-2050 will be in urban areas. That is, during this period the urban population is expected to rise by 2.5 billion persons, from 4.2 billion to 6.7 billion, while the total world population is projected to grow by somewhat less, 2.1 billion, from 7.6 billion in 2018 to 9.8 billion in 2050 (table I.1). The substantial growth expected in the urban population will be fuelled by several factors: natural increase, rural-urban migration and the geographic expansion of urban settlements through the annexation and the transformation of rural localities into urban settlements (see box I.2).

TABLE I.3. PERCENTAGE URBAN AND RATE OF URBANIZATION OF THE WORLD, BY DEVELOPMENT GROUP, SELECTED YEARS AND PERIODS, 1950-2050

| | *Percentage urban* | | | | | | *Rate of urbanization (per cent)* | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Development group* | *1950* | *1970* | *1990* | *2018* | *2030* | *2050* | *1950-1970* | *1970-1990* | *1990-2018* | *2018-2030* | *2030-2050* |
| World | 29.6 | 36.6 | 43.0 | 55.3 | 60.4 | 68.4 | 1.06 | 0.80 | 0.90 | 0.74 | 0.62 |
| More developed regions | 54.8 | 66.8 | 72.4 | 78.7 | 81.4 | 86.6 | 0.99 | 0.40 | 0.30 | 0.28 | 0.31 |
| Less developed regions | 17.7 | 25.3 | 34.9 | 50.6 | 56.7 | 65.6 | 1.78 | 1.61 | 1.33 | 0.94 | 0.73 |

**BOX I.2. SOURCES OF URBAN GROWTH**

Urban growth has three components: natural increase, migration and reclassification. Their respective contributions to urban growth differ depending, inter alia, on the demographic changes taking place in a country and the size of a given settlement, on spatial planning policies and national definitions of urban space, and on the physical environment and other country-specific or local circumstances.

**Natural increase** of urban populations results from an excess of births over deaths in urban areas. The balance depends on levels of fertility (affecting the number of births) and life expectancy at birth (affecting the number of deaths), and on the distribution of the population by age (other things being equal, older populations tend to experience fewer births and more deaths). Women living in urban areas typically have greater access to education and modern methods of family planning; as a result, their fertility is often lower compared to that of women living in rural areas. However, despite a lower level of fertility, there is often an excess of births over deaths in urban areas due to a lower level of mortality and a younger age distribution.

**Migration** to cities from rural areas or from abroad contributes to urban growth whenever the number of in-migrants exceeds the number of out-migrants. Migrants are often younger, on average, compared to the populations living in areas of origin or destination. Therefore, migration tends to have an impact on the age distributions of both the sending and receiving populations. Since most migrants to urban areas are adults in the working ages or their children, migrant populations tend to be younger than average. Therefore, migration tends to increase the average age of the population in areas of origin of migration while lowering the average age in areas of destination.

**Reclassification** contributes to urban growth by enlarging the size of urban areas. When cities grow in area, they incorporate neighbouring settlements and their populations, which were formerly classified as rural. Population growth in rural areas may result in reclassification of settlements from rural to urban, thus accelerating the pace of urbanization.

## B. CONTRASTING URBANIZATION TRENDS IN THE LESS DEVELOPED REGIONS AND THE MORE DEVELOPED REGIONS

Striking differences in patterns of urbanization exist between the more developed regions and the less developed regions. While just under half of the population of the less developed regions currently lives in rural areas, the great majority in the more developed regions resides in urban areas. However, the urban population of the less developed regions has been growing considerably faster than that of the more developed regions (figure I.1), and as a result, its share of the world's urban population has been rising. In 1950 the urban population of the more developed regions was substantially larger than that of the less developed regions (446 million versus 305 million), so that the more developed regions accounted for 59 per cent of the world's urban population at a time when they had just 32 per cent of the world's total population (table I.4). But already in the 1950s, the patterns of growth of the urban populations of the more developed and less developed regions were showing signs of divergence, with the former growing more slowly. As a consequence, by 1970 the urban population of the less developed regions had surpassed that of the more developed regions (680 million versus 674 million), and the difference increased rapidly thereafter. In 2018, three times as many urban dwellers were estimated to live in the less developed regions as in the more developed regions (3.2 billion versus 1.0 billion) (table I.1). In that year the less developed regions accounted for 76 per cent of the world's urban population and 84 per cent of the total world population (table I.4). As the developing world becomes increasingly urbanized, the difference between these two figures will decline. By 2050, with 5.6 billion urban dwellers, the less developed regions are projected to have 83 per cent of the world's urban population and 87 per cent of the total world population.

Correspondingly, with 1.1 billion urban inhabitants, the urban areas of the more developed regions will account for only 17 per cent of the urban population of the world and 13 per cent of the world's total population.

**Figure I.1. Estimated and projected urban populations of the world, the more developed regions and the less developed regions, 1950-2050**

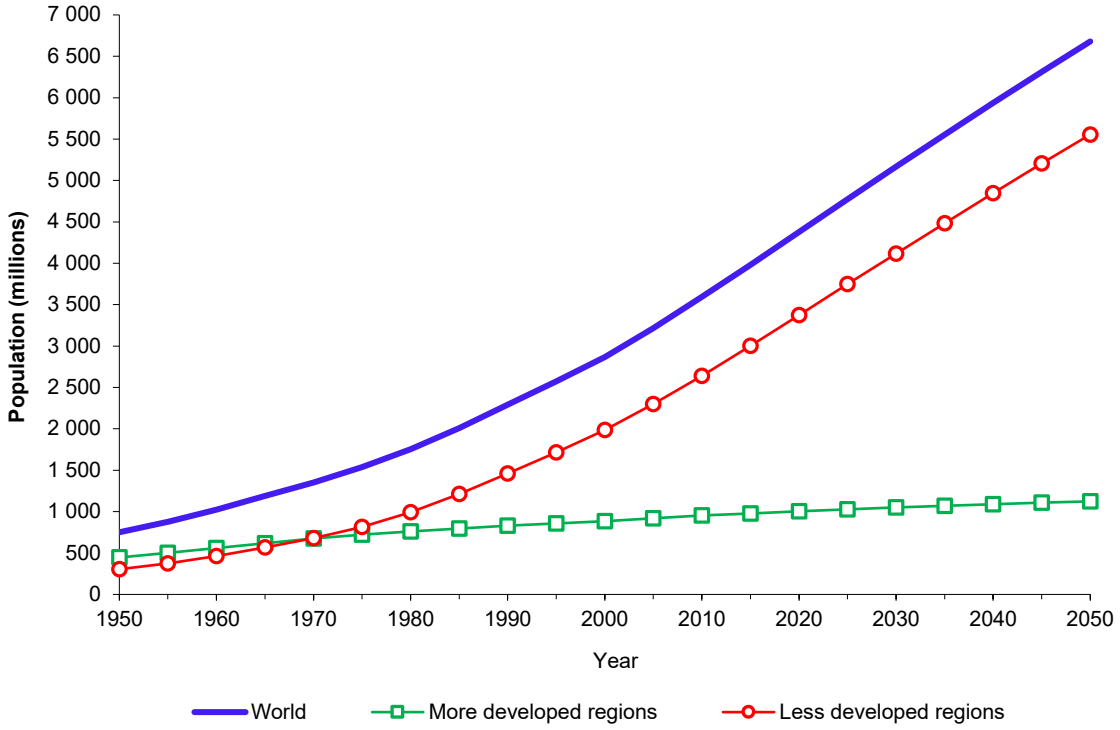


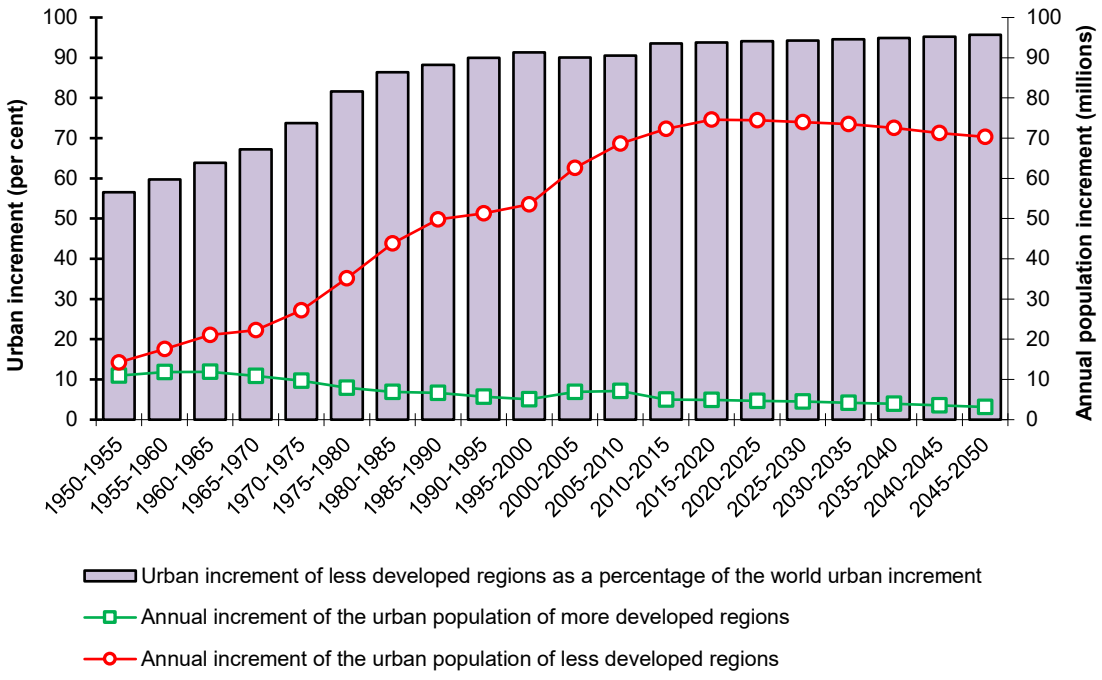

TABLE I.4. THE TOTAL, URBAN AND RURAL POPULATIONS OF THE WORLD, THE MORE DEVELOPED REGIONS AND THE LESS DEVELOPED REGIONS, 1950, 1970, 1990, 2018, 2030 AND 2050

| | *Percentage* | | | | | |
|---|---|---|---|---|---|---|
| *Development group* | *1950* | *1970* | *1990* | *2018* | *2030* | *2050* |
| *Total population* | | | | | | |
| More developed regions | 32.1 | 27.3 | 21.5 | 16.5 | 15.1 | 13.3 |
| Less developed regions | 67.9 | 72.7 | 78.5 | 83.5 | 84.9 | 86.7 |
| *Urban population* | | | | | | |
| More developed regions | 59.4 | 49.8 | 36.2 | 23.6 | 20.3 | 16.8 |
| Less developed regions | 40.6 | 50.2 | 63.8 | 76.4 | 79.7 | 83.2 |
| *Rural population* | | | | | | |
| More developed regions | 20.6 | 14.3 | 10.4 | 7.9 | 7.1 | 5.6 |
| Less developed regions | 79.4 | 85.7 | 89.6 | 92.1 | 92.9 | 94.4 |

Rapid urban growth in the less developed regions has occurred within a context of rapid growth of the total population. In these regions, sustained high fertility combined with declining mortality resulted in fast population growth that peaked around 1970 (United Nations, 2017). Fertility has fallen substantially since then, and, consequently, so has the population growth rate. Urban populations have experienced particularly fast growth because of the combined effects of natural increase, rural-urban migration and the expansion of urban settlements, as discussed above.

As a result of the rapid growth of urban areas of the less developed regions, they have accounted for a rising share of the annual increment to the world's urban population. The average annual increment of the world's urban population rose steadily from 25 million persons in 1950-1955 to 57 million in 1990-1995 and close to 80 million in 2015-2020. It is expected to fall thereafter, towards 73 million in 2045-2050. The annual increment of the urban population in the less developed regions has also been increasing, from 14 million in 1950-1955 to 75 million in 2015-2020. After 2020, a levelling off is expected to occur. The average annual urban increment of the less developed regions is expected to be 70 million in 2045-2050 (figure I.2). Meanwhile, the annual increment to the urban population in the more developed regions peaked at 12 million in 1960-1965 and has been falling steadily since. It is expected to continue to fall through at least 2045-2050, when it will be only 3 million per year. These differences between urban growth in the more and less developed regions have resulted in dramatic changes in the distribution of the world's urban population growth. In 1950-1955, the urban areas of the less developed regions accounted for 57 per cent of the annual increment of the world's urban population. By 2015-2020 they were accounting for 94 per cent, and by 2045-2050 they are expected to account for 96 per cent (figure I.2).

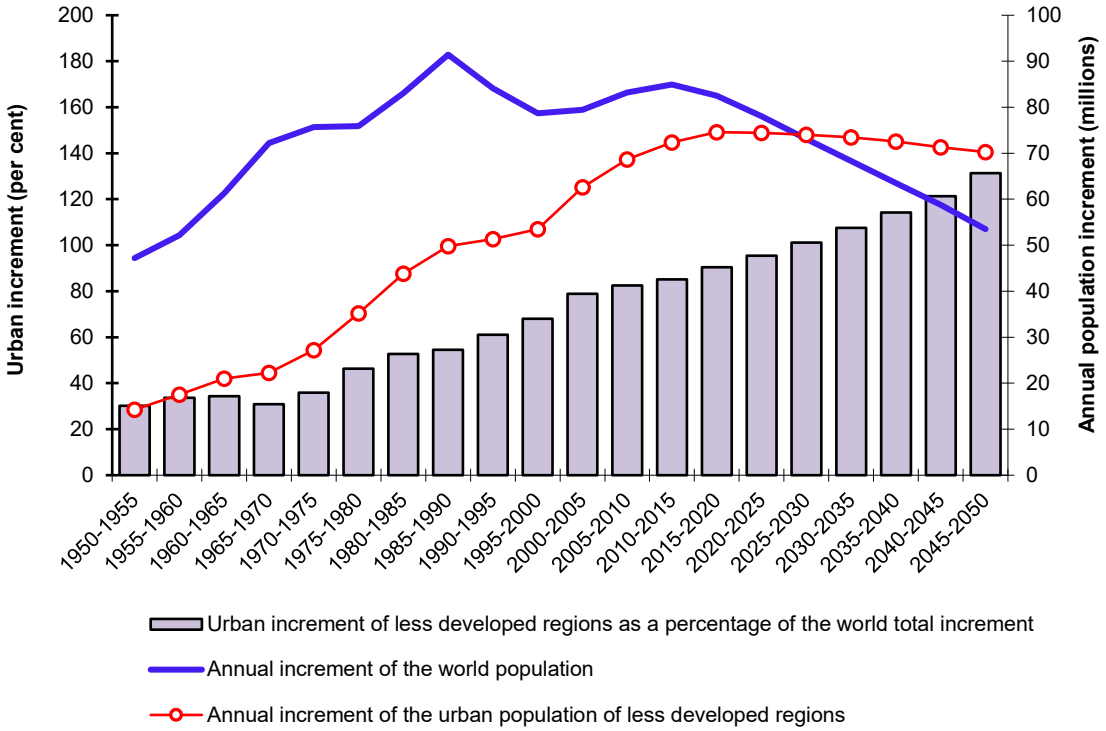
**Figure I.2. Annual increment of the urban population of the more developed regions and the less developed regions, and urban increment of the less developed regions as a percentage of the world urban increment**




Not only are the urban areas of less developed regions accounting for most of the population growth in the urban areas of the world, they are also increasingly accounting for most of the growth of the entire world population (figure I.3). The annual increment in the world population was growing until 1985-1990, when

it reached a peak of 91 million. Since then it has fallen, to 83 million in 2015-2020 and it is expected to continue to fall throughout the projection period. In 1950-1955 the increase in the population of the urban areas of the less developed regions accounted for 30 per cent of the total increment to the world's population. In 2015-2020 that increase accounts for 90 per cent. In 2025-2030 and beyond, urban population growth in the less developed regions is expected actually to exceed world population growth since rural populations are projected to decrease.

**Figure I.3. Annual increment of the world's population, annual increment of the urban population of the less developed regions and urban increment of the less developed regions as a percentage of the world total increment**




The contrasting trends in urban growth between the more developed regions and the less developed regions are also apparent when population growth rates are considered. As figure I.4 shows, the growth rate of the urban population of the less developed regions was considerably higher than that of the urban population of the more developed regions throughout the period 1950-2018, and the difference is expected to remain large through at least 2050. Furthermore, whereas the urban growth rate of the more developed regions has been declining fairly steadily since 1950, that of the less developed regions fluctuated during 1950-1985. It began a steady decline in 1980-1985, when it was 4.0 per cent per year. For 2015-2020, the urban growth rate in the less developed regions is estimated at 2.3 per cent per year, more than four times that of the more developed regions (0.5 per cent per year). Notably, between 2018 and 2050, the urban population of the less developed regions is expected to increase by 72 per cent, compared to only 13 per cent in the more developed regions.

The unusual pattern of the urban growth rate of the less developed regions between 1950 and 1985 is related primarily to fluctuations in the world's largest country, China, which in 1985 accounted for 20 per cent of the urban population of the less developed regions. The annual rate of urban growth in China fluctuated markedly, from 5.2 per cent in 1950-1955 plummeting to 1.9 per cent in 1965-1970, rising back to

4.8 per cent in 1980-1985, and then declining to 2.4 per cent in 2015-2020 (table I.5). When China is excluded from the data, the overall trend in the urban growth rate of the remaining countries of the less developed regions is much smoother : it basically stays at around 4.0 per cent per year between 1950 and 1980 and then declines steadily to reach 2.3 per cent in 2015-2020 (figure I.5).

The volatile trends in China's urban population growth rates are quite different from the corresponding trends in the growth rates of the overall population (figure I.6). The decline in urban population growth rates is reflected in the virtual stagnation of the proportion urban (table I.5) during the period of the Cultural Revolution, a programme of radical political and socio-economic reform and civil strife accompanied by the forceful relocation of large numbers of urban dwellers to rural areas. The lack of census information for China for the entire period 1960-1980 limits the possibility of assessing the accuracy of the available official estimates of urban population change during this period. The census of 1982 provided the first comprehensive source of data on the urban population of China since the 1950s. The reduction of the proportion urban in the years before that census reflects both the real effects of the Cultural Revolution and the use of an official definition of urban that might have underestimated the proportion urban. Starting in 1983 the official criteria to determine the geographical demarcation of cities and towns changed several times (Zhang and Zhao, 1998), leading to increases in the number of localities considered as urban. Reclassification has therefore played an important role in estimating urbanization trends in China since 1980. This fact should be borne in mind in interpreting trends in urban growth in China, as well as their effects on overall urban growth in the less developed regions and globally.

**Figure I.4. Average annual rate of change of the urban populations of the world, the more developed regions and the less developed regions, 1950-2050**

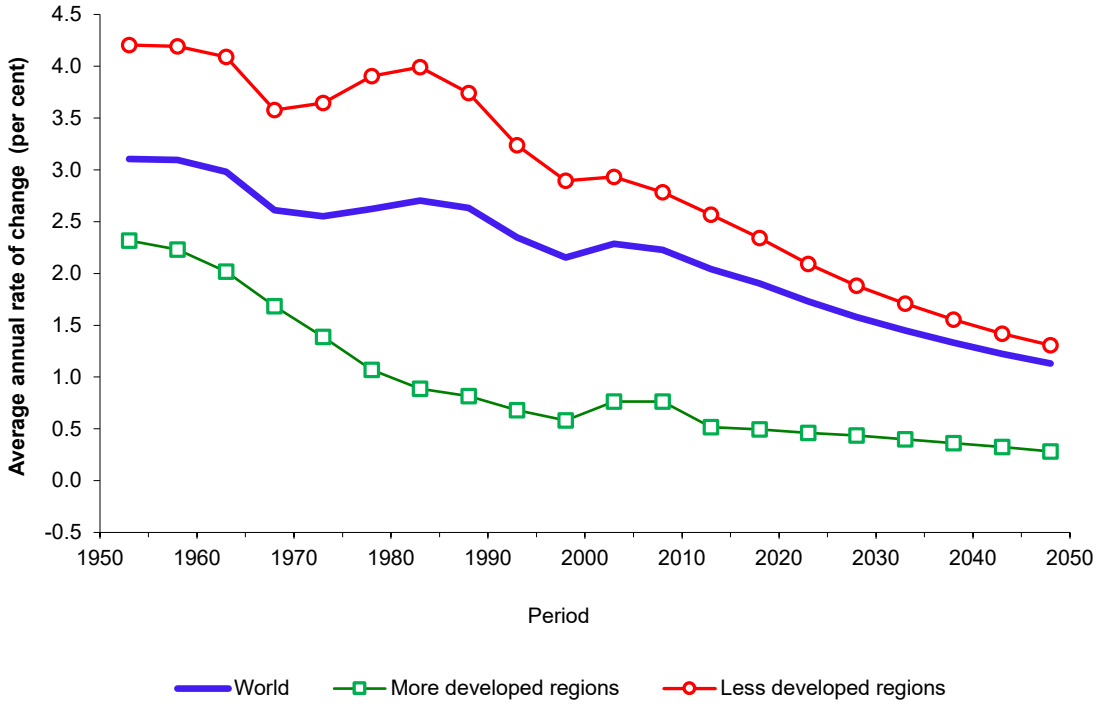


**Figure I.5. Average annual rate of change of the urban population, China and the less developed regions excluding China, 1950-2050**

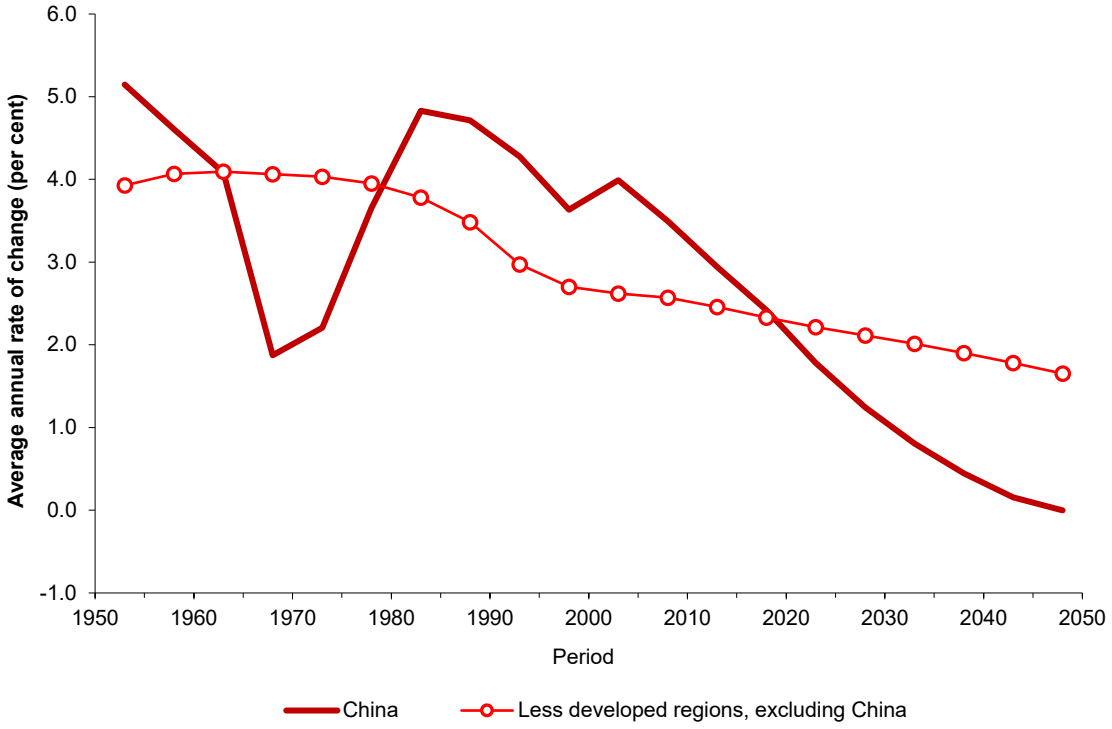



**Figure I.6. Average annual rate of change of the urban, rural and total population of China, 1950-2050**

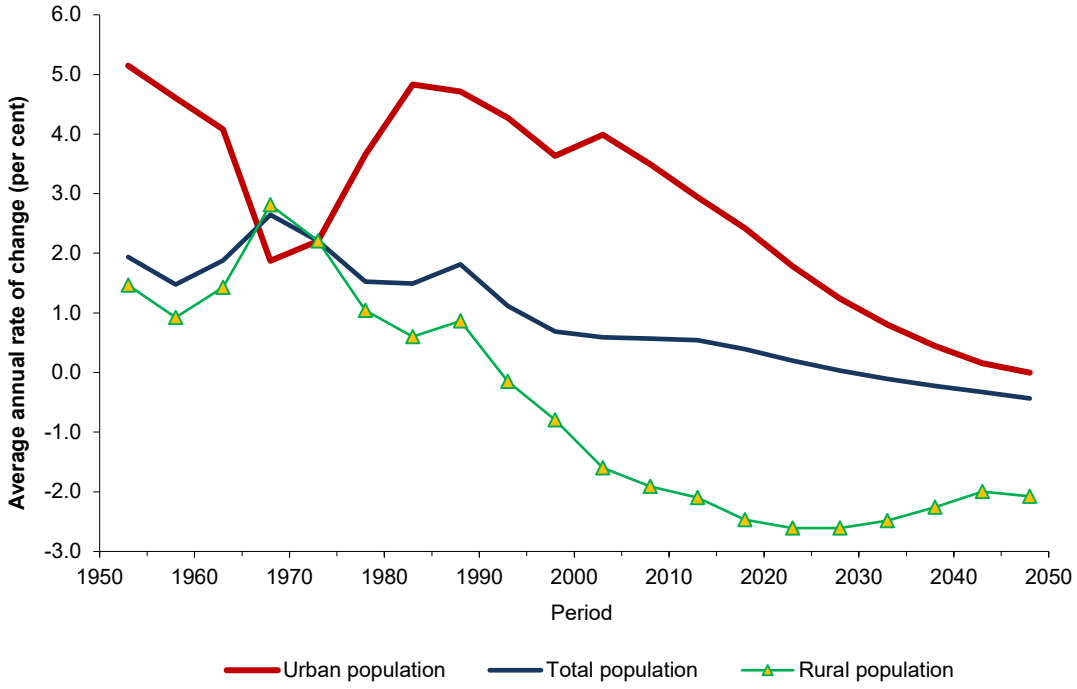


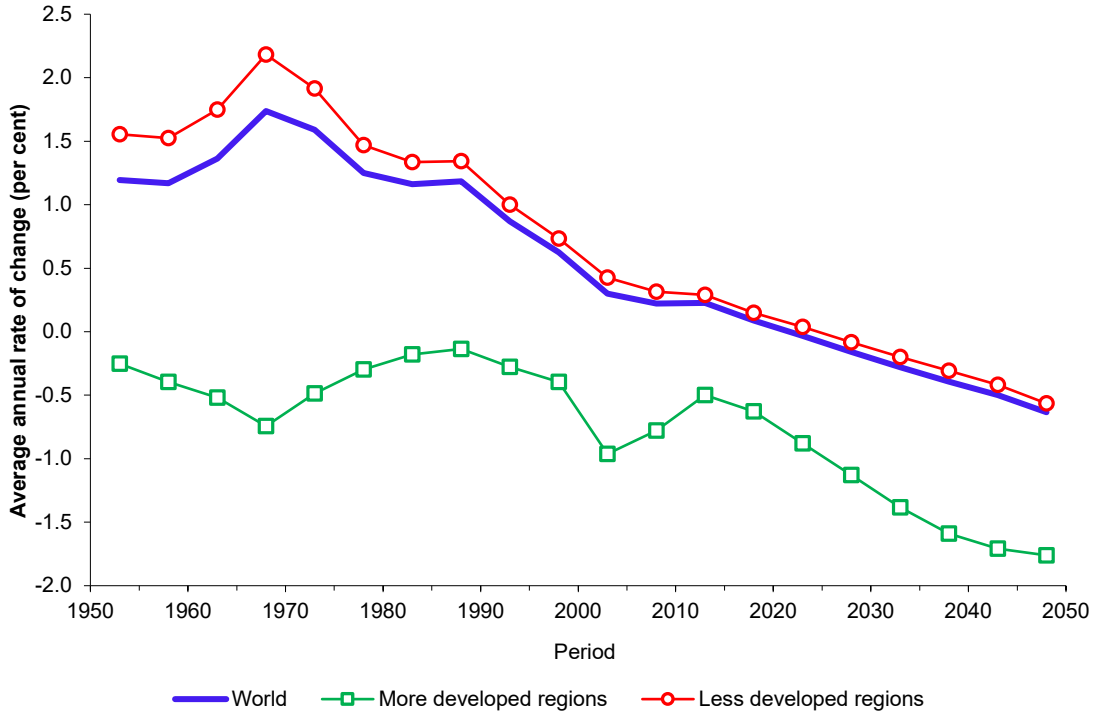
TABLE I.5. PERCENTAGE URBAN AND AVERAGE ANNUAL RATE OF CHANGE OF THE URBAN AND TOTAL POPULATION OF CHINA, 1950-2050

| *Period* | *Percentage urban at the beginning of the period* | *Average annual rate of change (per cent)* | |
|---|---|---|---|
| | | *Urban population* | *Total population* |
| 1950-1955 | 11.8 | 5.15 | 1.94 |
| 1955-1960 | 13.9 | 4.61 | 1.48 |
| 1960-1965 | 16.2 | 4.08 | 1.88 |
| 1965-1970 | 18.1 | 1.87 | 2.65 |
| 1970-1975 | 17.4 | 2.21 | 2.21 |
| 1975-1980 | 17.4 | 3.66 | 1.52 |
| 1980-1985 | 19.4 | 4.83 | 1.49 |
| 1985-1990 | 22.9 | 4.71 | 1.81 |
| 1990-1995 | 26.4 | 4.27 | 1.12 |
| 1995-2000 | 31.0 | 3.63 | 0.69 |
| 2000-2005 | 35.9 | 3.99 | 0.59 |
| 2005-2010 | 42.5 | 3.50 | 0.57 |
| 2010-2015 | 49.2 | 2.94 | 0.54 |
| 2015-2020 | 55.5 | 2.42 | 0.39 |
| 2020-2025 | 61.4 | 1.78 | 0.20 |
| 2025-2030 | 66.5 | 1.24 | 0.03 |
| 2030-2035 | 70.6 | 0.80 | -0.11 |
| 2035-2040 | 73.9 | 0.45 | -0.22 |
| 2040-2045 | 76.4 | 0.16 | -0.33 |
| 2045-2050 | 78.3 | 0.00 | -0.43 |

As with urban population trends, the more and less developed regions differ markedly in rural population trends. Whereas the rural population of the more developed regions has been declining during at least the last 68 years, that of less developed regions has continued to grow. The growth rate of the rural population of the less developed regions peaked at 2.2 per cent per year in 1965-1970 and then began to decline (figure I.7). By 2015-2020, the rural growth rate of the less developed regions stood at just 0.15 per cent per year. It is expected to continue to fall and is projected to be negative by 2025-2030.

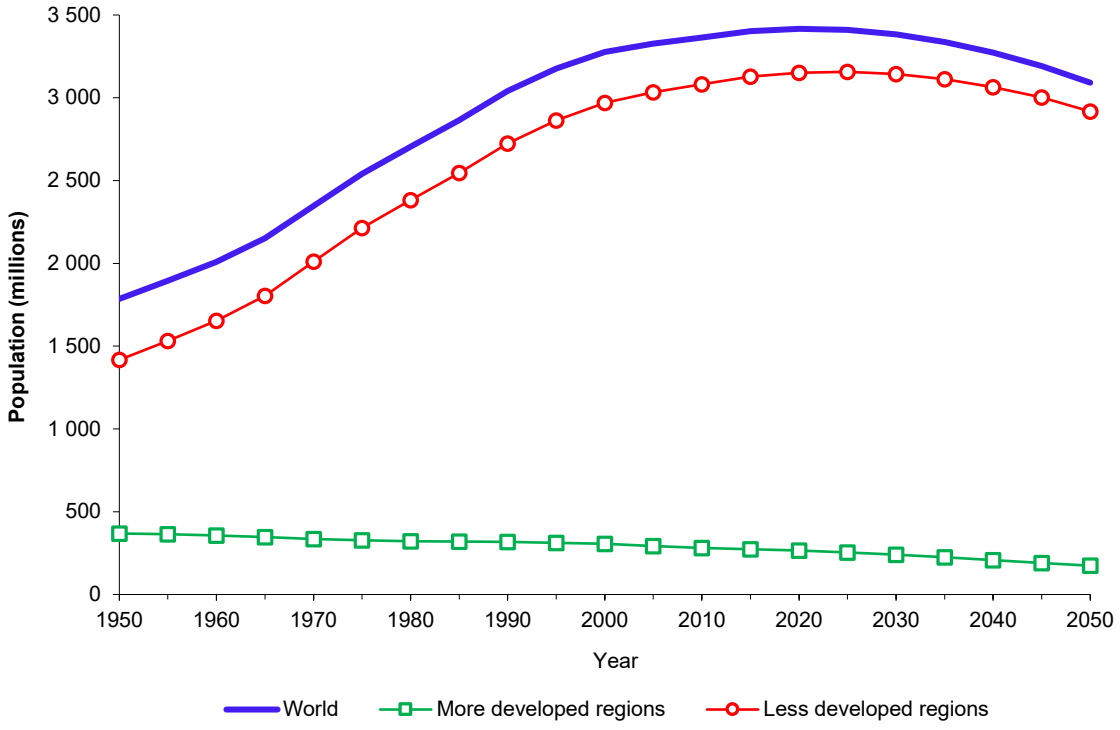
The contrasting patterns of growth of the rural populations of the more developed and the less developed regions have resulted in a significant redistribution of the world's rural population. In 1950, the 369 million rural dwellers in the more developed regions constituted over 20 per cent of the rural population of the world (figure I.8), whereas by 2018, the number of rural dwellers in the more developed regions (269 million) accounted for just under 8 per cent of the world's rural population. This share is expected to drop to below 6 per cent by 2050, as the rural population in developed countries decreases to 174 million persons. Overall, the rural population of the more developed regions is expected to decline by 35 per cent during the period 2018-2050. In comparison, the rural population of the less developed regions has continued to grow, from 1.4 billion in 1950 to 3.1 billion in 2018, more than doubling over those 64 years. The years to come, however, are expected to witness a major reduction in rural population growth in the less developed regions, and their rural population is expected to decline to 2.9 billion in 2050.

**Figure I.7. Average annual rate of change of the rural populations of the world, the more developed regions and the less developed regions, 1950-2050**




As a consequence of the contrasting growth patterns of the urban and rural populations of the more developed and the less developed regions, the two regions have experienced and are expected to continue to experience different trends in the growth of the proportion urban. As previously noted, the more developed regions were already highly urbanized by 1950, when over half (55 per cent) of their population lived in urban areas (table I.3). At that time, the less developed regions had just 18 per cent of their inhabitants living in cities and towns. However, the urban population of less developed regions has been growing quite rapidly between 1950 and 2018 and the proportion urban in those regions more than doubled, reaching 51 per cent. In the more developed regions, the proportion urban rose less rapidly but reached nearly 79 per cent by 2018. The projected proportion urban in 2050 is expected to reach close to 87 per cent in the more developed regions and 66 per cent in the less developed regions. Thus, there is still ample room for a continuing expansion of the proportion urban in the less developed regions. The more developed regions, on the other hand, may be nearing an upper limit.

**Figure I.8. Estimated and projected rural populations of the world, the more developed regions and the less developed regions, 1950-2050**




The contrast is made clearer by considering the rate of urbanization (i.e., the growth rate of the percentage urban). Since 1950, the more developed regions have had a declining rate of urbanization, falling to a low of 0.24 per cent in 1995-2000 (table I.6). Rates rose slightly in 2000-2005 and are expected to decline in the future. In contrast, the rate of urbanization of the less developed regions, which was above 1.5 per cent per year from 1950 to 1990 (except for 1965-1975 because of China, as noted above), is expected to fall steadily from 1.1 per cent in 2015-2020 to 0.7 per cent in 2045-2050, although it will still be much higher than the rate for the more developed regions.

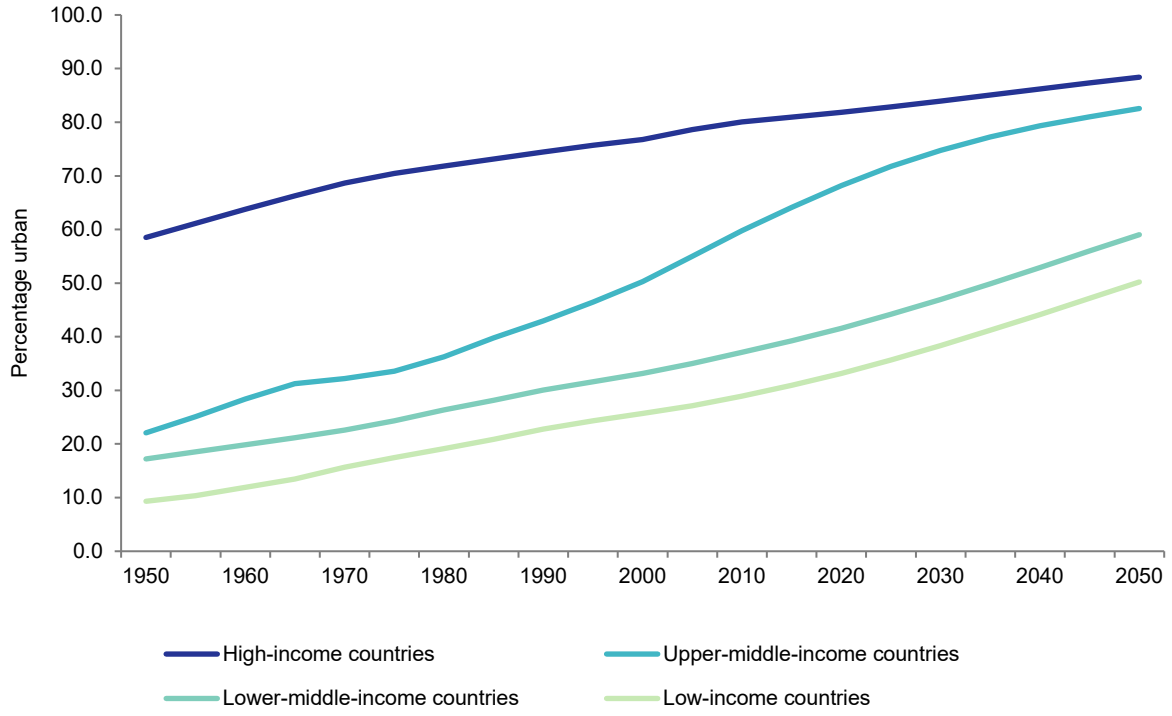
TABLE I.6. PERCENTAGE URBAN AND RATE OF URBANIZATION OF THE WORLD, THE MORE DEVELOPED REGIONS AND THE LESS DEVELOPED REGIONS, 1950-2050

| | *Percentage urban* | | | | *Rate of urbanization (per cent)* | | |
|---|---|---|---|---|---|---|---|
| *Year* | *World* | *More developed regions* | *Less developed regions* | *Period* | *World* | *More developed regions* | *Less developed regions* |
| 1950 | 29.6 | 54.8 | 17.7 | 1950-1955 | 1.33 | 1.12 | 2.16 |
| 1955 | 31.6 | 57.9 | 19.7 | 1955-1960 | 1.30 | 1.06 | 2.11 |
| 1960 | 33.8 | 61.1 | 21.9 | 1960-1965 | 1.06 | 0.95 | 1.81 |
| 1965 | 35.6 | 64.1 | 24.0 | 1965-1970 | 0.56 | 0.84 | 1.05 |
| 1970 | 36.6 | 66.8 | 25.3 | 1970-1975 | 0.61 | 0.60 | 1.28 |
| 1975 | 37.7 | 68.8 | 26.9 | 1975-1980 | 0.84 | 0.42 | 1.75 |
| 1980 | 39.3 | 70.3 | 29.4 | 1980-1985 | 0.92 | 0.31 | 1.84 |
| 1985 | 41.2 | 71.4 | 32.2 | 1985-1990 | 0.84 | 0.27 | 1.59 |
| 1990 | 43.0 | 72.4 | 34.9 | 1990-1995 | 0.83 | 0.26 | 1.43 |
| 1995 | 44.8 | 73.3 | 37.5 | 1995-2000 | 0.83 | 0.26 | 1.32 |
| 2000 | 46.7 | 74.2 | 40.1 | 2000-2005 | 1.04 | 0.43 | 1.46 |
| 2005 | 49.2 | 75.9 | 43.1 | 2005-2010 | 0.99 | 0.36 | 1.37 |
| 2010 | 51.7 | 77.2 | 46.1 | 2010-2015 | 0.86 | 0.23 | 1.19 |
| 2015 | 53.9 | 78.1 | 49.0 | 2015-2020 | 0.82 | 0.24 | 1.09 |
| 2020 | 56.2 | 79.1 | 51.7 | 2020-2025 | 0.75 | 0.27 | 0.97 |
| 2025 | 58.3 | 80.2 | 54.3 | 2025-2030 | 0.71 | 0.30 | 0.87 |
| 2030 | 60.4 | 81.4 | 56.7 | 2030-2035 | 0.67 | 0.32 | 0.80 |
| 2035 | 62.5 | 82.7 | 59.0 | 2035-2040 | 0.63 | 0.32 | 0.74 |
| 2040 | 64.5 | 84.0 | 61.3 | 2040-2045 | 0.59 | 0.31 | 0.69 |
| 2045 | 66.4 | 85.4 | 63.4 | 2045-2050 | 0.58 | 0.29 | 0.66 |
| 2050 | 68.4 | 86.6 | 65.6 | | | | |

## C. PATTERNS OF URBAN AND RURAL GROWTH BY INCOME GROUP

Overall, high-income countries have a higher share of population living in urban areas, showing a positive relationship between urbanization and per capita income. In high-income countries and upper-middle-income countries in 2018, the majority of the population lives in urban areas: 81 per cent and 67 per cent, respectively (figure I.9). The urban transition in high-income countries started many decades ago: 59 per cent of their population lived in urban areas in 1950. This early urbanization was achieved partly due to the Industrial Revolution in Europe and Northern America where rural to urban migration occurred in the 19th century (Bairoch, 1988). Their level of urbanization is expected to rise further from 81 per cent today to 88 per cent in 2050. In contrast, upper-middle-income countries of today started with low levels of urbanization with only 22 per cent of the population living in urban areas in 1950. This percentage rose rapidly to 67 per cent today and is projected to reach 83 per cent by 2050.

**Figure I.9. Percentage of population residing in urban areas by income group, 1950-2050**




NOTE: The country classification by income level is based on 2016 GNI per capita from the World Bank.

Lower-middle-income countries started with a comparable level of urbanization to upper-middle-income countries in 1950 (around 20 per cent). However, the urbanization process has been slower in lower-middle-income countries and the share of population living in urban areas is 41 per cent today. The share is projected to rise further to 59 per cent by 2050. Low-income countries have a smaller share of population living in urban areas, but such share is projected to increase substantially in the coming decades. Low-income countries started with a very low level of urbanization of 9 per cent in 1950. The level has increased to 32 per cent today and by 2050 half of the population is projected to live in urban areas.

Upper-middle-income countries have experienced the fastest pace of urbanization since 1990, but the pace is expected to slow down in the coming decades. Between 1990 and 2018, the population of upper-middle-income countries urbanized at an average rate of 1.6 per cent annually, driven by rapid urbanization in several populous countries such as China and Thailand, with average annual urbanization rates of 2.9 and 1.9 per cent, respectively, over that period (data not shown). However, the urbanization rate in the upper-middle-income group is projected to slow to approximately 0.5 per cent annually, on average, between 2030 and 2050, a comparable rate to that observed in the high-income countries between 1970 and 1990 (table I.7).

Lower-middle and low-income countries are projected to experience the fastest urbanization rates in the coming decades. Since 1990, the groups of lower-middle and low-income countries, respectively, experienced urbanization rates of 1.1 and 1.2 per cent annually. Over the coming decades, these income groups will have the highest urbanization rates, at 1.2 per cent and 1.4 per cent, respectively. While urbanization rates are projected to slow down in the near future in most countries in the world, several low-income countries in Sub-Saharan Africa will have increasing rates instead. Examples of such countries are Chad, Comoros, Malawi, Niger, South Sudan and Sierra Leone.

TABLE I.7. PERCENTAGE URBAN AND RATE OF URBANIZATION OF THE WORLD, BY INCOME GROUP, SELECTED YEARS AND PERIODS, 1950-2050

| | *Percentage urban* | | | | | | *Rate of urbanization (per cent)* | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Income group* | *1950* | *1970* | *1990* | *2018* | *2030* | *2050* | *1950-1970* | *1970-1990* | *1990-2018* | *2018-2030* | *2030-2050* |
| World | 29.6 | 36.6 | 43.0 | 55.3 | 60.4 | 68.4 | 1.06 | 0.80 | 0.90 | 0.74 | 0.62 |
| High-income countries | 58.5 | 68.7 | 74.4 | 81.5 | 83.9 | 88.4 | 0.80 | 0.40 | 0.32 | 0.25 | 0.26 |
| Middle-income countries | 19.9 | 27.8 | 36.7 | 52.6 | 59.0 | 68.3 | 1.68 | 1.39 | 1.28 | 0.96 | 0.73 |
| Upper-middle-income countries | 22.1 | 32.2 | 42.9 | 66.6 | 74.8 | 82.6 | 1.89 | 1.44 | 1.57 | 0.96 | 0.50 |
| Lower-middle-income countries | 17.2 | 22.6 | 30.0 | 40.6 | 47.0 | 59.0 | 1.36 | 1.42 | 1.08 | 1.20 | 1.14 |
| Low-income countries | 9.3 | 15.7 | 22.8 | 32.2 | 38.3 | 50.2 | 2.60 | 1.87 | 1.24 | 1.44 | 1.35 |

## D. PATTERNS OF URBAN AND RURAL GROWTH IN THE SIX GEOGRAPHIC REGIONS OF THE WORLD

The different patterns of urbanization observed for the more developed regions and less developed regions are the result of widely varying experiences among the geographic regions that constitute those groups. Europe and Northern America currently exhibit high levels of urbanization but slowing rates of urban population growth (figure I.10). In the developing world, the level of urbanization in Asia is now approximating 50 per cent while Africa remains mostly rural, with 43 per cent of its population living in urban areas. On the other hand, Latin America and the Caribbean, having urbanized rapidly since 1950, already has a proportion urban similar to that of many developed countries. Oceania is also highly urbanized largely as a result of high levels of urbanization in Australia and New Zealand.

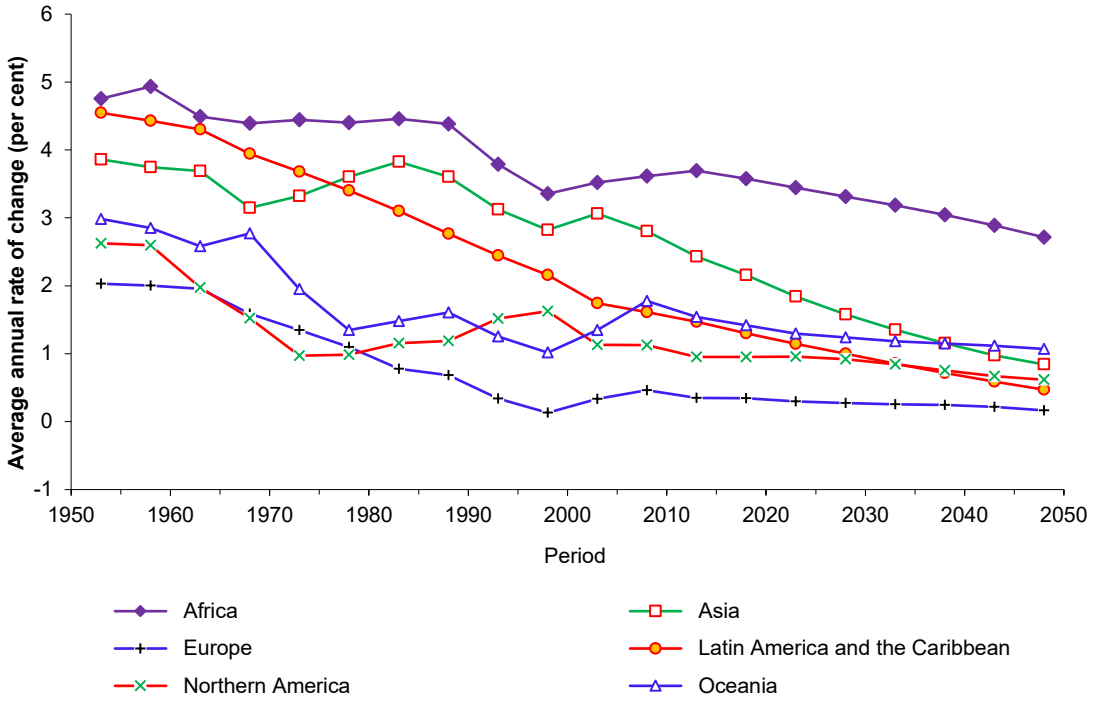
Despite its relatively low level of urbanization, Asia, because of its large population, has the largest number of persons living in urban areas (2.3 billion in 2018), followed by Europe, with 553 million urban dwellers, Africa with 548 million and Latin America and the Caribbean with 526 million (table I.8). Because of the relatively high urban population growth rates expected in the future in Africa and Asia, by 2050 those two geographic regions will have the largest numbers of urban dwellers in the world—3.5 billion in Asia and 1.5 billion in Africa—even though they will still be the least urbanized geographic regions of the world.

Figure I.10 presents data, for all six geographic regions of the world, on the average annual rates of change of the urban population since 1950 and those expected in the future. Africa's urban population growth rates have been the highest, above 4 per cent per year during 1950-1990, and are expected to remain at or above 3 per cent per annum through 2035-2040. By 2045-2050, the growth rate of Africa's urban population is expected to have declined to 2.7 per cent. The urban growth rate of Latin America and the Caribbean was close to that of Africa in 1950-1955 (4.6 per cent versus 4.8 per cent), but declined rapidly to 1.3 per cent in 2015-2020. It is expected to continue to fall further to only 0.5 per cent by 2045-2050.

In Asia, the urban growth rate reflects the fluctuations associated with the urbanization trends experienced by China, as discussed above. It remained over 3 percent through 1990-1995, fell to 2.2 per cent in 2015-2020 and is projected to decline to 0.8 per cent by 2045-2050. In Europe, Northern America and Oceania, urban population growth rates declined markedly between approximately 1960 and 1980, during the so-called "counter-urbanization" period. In Europe, the urban growth rate continued to fall, to 0.1 per cent during 1995-2000. It rose slightly by 2005-2010, to 0.5 per cent, and is subsequently expected to decline slowly to 0.2 per cent in 2045-2050. The growth rates of the urban population of Northern

America rose as high as 1.6 per cent in 1995-2000, then began a decline that continued through 2015-2020 (1.0 per cent). In 2045-2050, the urban population growth rate in Northern America is projected to have declined to 0.6 per cent.

**Figure I.10. Average annual rate of change of the urban population by geographic region, 1950-2050**




The rapid urban growth experienced by several geographic regions has resulted in large increases in the numbers of urban dwellers. Africa's urban population increased more than sixteen-fold between 1950 and 2018, rising from 33 million to 548 million (table I.8). The urban population of Asia increased by nine-fold, from 246 million to 2.3 billion, while that of Latin America and the Caribbean increased by seven-fold, from 70 million to 526 million. The number of urban dwellers in Northern America more than doubled (from 110 million to 299 million), while that in Oceania tripled (from 8 million to 28 million). Even the urban population of Europe, whose growth rates have been relatively low, nearly doubled during that same period, from 284 million to 553 million.

Given the large differences in urban growth rates across geographic regions between 1950 and 2018, a significant redistribution of the world's urban population occurred (table I.8). Africa's share almost tripled, from 4 per cent in 1950 to 13 per cent in 2018; Asia's share grew by more than 60 per cent, from 33 per cent to 54 per cent; and the share of Latin America and the Caribbean rose from 9 per cent to 13 per cent. Meanwhile, the shares of Europe and Northern America fell, with Europe's falling by nearly two-thirds, from 38 per cent to 13 per cent, and Northern America's by more than half from 15 per cent to 7 per cent. Oceania's small share grew even smaller.

Over the next 32 years, the differences expected in urban population growth will accentuate the redistribution of the urban population that occurred during 1950-2018. Africa's urban population is likely to nearly triple between 2018 and 2050, while that of Asia is likely to increase by over 50 per cent. With

1.5 billion urban dwellers in 2050, Africa will have 22 per cent of the world's urban population, while Asia, with 3.5 billion persons residing in urban areas, will have 52 per cent. Together, they will account for nearly three-quarters of the urban population of the world. All other geographic regions are expected to see their shares of the world urban population decline, even though their urban populations are projected to increase substantially. The urban population of Latin America and the Caribbean will increase by nearly a third, from 526 million in 2018 to 685 million in 2050, but its share will decline from 13 to 10 per cent. The share of Northern America is expected to decline from 7 per cent to 6 per cent, although its urban population will likely increase by a 29 per cent. The largest expected reduction is in Europe's share, which will decrease from 13 per cent to 9 per cent between 2018 and 2050.

TABLE I.8. EVOLUTION OF THE URBAN, RURAL AND TOTAL POPULATIONS OF THE WORLD, BY GEOGRAPHIC REGION, SELECTED YEARS, 1950-2050

| | *Population (millions)* | | | | | *Percentage* | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| *Geographic region* | *1950* | *1990* | *2018* | *2030* | *2050* | *1950* | *1990* | *2018* | *2030* | *2050* |
| | | | | *A. Urban population* | | | | | | |
| World | 751 | 2 290 | 4 220 | 5 167 | 6 680 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Africa | 33 | 200 | 548 | 824 | 1 489 | 4.3 | 8.7 | 13.0 | 15.9 | 22.3 |
| Asia | 246 | 1 040 | 2 266 | 2 802 | 3 479 | 32.8 | 45.4 | 53.7 | 54.2 | 52.1 |
| Europe | 284 | 505 | 553 | 573 | 599 | 37.8 | 22.0 | 13.1 | 11.1 | 9.0 |
| Latin America and the Caribbean | 70 | 315 | 526 | 600 | 685 | 9.3 | 13.8 | 12.5 | 11.6 | 10.3 |
| Northern America | 110 | 211 | 299 | 335 | 387 | 14.7 | 9.2 | 7.1 | 6.5 | 5.8 |
| Oceania | 8 | 19 | 28 | 33 | 41 | 1.1 | 0.8 | 0.7 | 0.6 | 0.6 |
| | | | | *B. Rural population* | | | | | | |
| World | 1 785 | 3 041 | 3 413 | 3 384 | 3 092 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Africa | 196 | 434 | 740 | 880 | 1 039 | 11.0 | 14.3 | 21.7 | 26.0 | 33.6 |
| Asia | 1 158 | 2 182 | 2 279 | 2 144 | 1 778 | 64.9 | 71.8 | 66.8 | 63.4 | 57.5 |
| Europe | 265 | 217 | 190 | 167 | 117 | 14.9 | 7.1 | 5.6 | 4.9 | 3.8 |
| Latin America and the Caribbean | 99 | 131 | 126 | 118 | 95 | 5.6 | 4.3 | 3.7 | 3.5 | 3.1 |
| Northern America | 62 | 69 | 65 | 61 | 48 | 3.5 | 2.3 | 1.9 | 1.8 | 1.6 |
| Oceania | 5 | 8 | 13 | 15 | 16 | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 |
| | | | | *C. Total population* | | | | | | |
| World | 2 536 | 5 331 | 7 633 | 8 551 | 9 772 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Africa | 229 | 635 | 1 288 | 1 704 | 2 528 | 9.0 | 11.9 | 16.9 | 19.9 | 25.9 |
| Asia | 1 404 | 3 221 | 4 545 | 4 947 | 5 257 | 55.4 | 60.4 | 59.5 | 57.8 | 53.8 |
| Europe | 549 | 722 | 743 | 739 | 716 | 21.7 | 13.5 | 9.7 | 8.6 | 7.3 |
| Latin America and the Caribbean | 169 | 446 | 652 | 718 | 780 | 6.7 | 8.4 | 8.5 | 8.4 | 8.0 |
| Northern America | 173 | 280 | 364 | 395 | 435 | 6.8 | 5.3 | 4.8 | 4.6 | 4.4 |
| Oceania | 13 | 27 | 41 | 48 | 57 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 |

Given their high urban growth rates and their growing shares of the world's urban population, Africa and Asia account for most of the increments of the urban population. During 1950-1970, these two geographic regions together accounted for 52 per cent of all the increase in the world's urban population, a share that rose to 81 per cent in 1990-2018, with 64 per cent in Asia alone (table I.9). The share of Africa is expected to continue to increase, to 29 per cent during 2018-2030 and to 44 per cent during 2030-2050. Asia's share will fall to 57 percent in 2018-2030 and to 45 per cent in 2030-2050. Africa and Asia will together account for 88 per cent of all new urban inhabitants between 2018 and 2050. All other geographic regions will see a decline in their shares of the annual increment to the world's urban population. The share

of Latin America and the Caribbean will likely fall by more than half, from 16 per cent of the world urban increment in 1950-1970 and 1970-1990 to 6 per cent during 2030-2050. For Oceania and Northern America, the magnitudes of the reductions are smaller, while the proportion of the increment of the urban population accounted for by Europe is reduced to less than two per cent by 2030-2050, compared to almost 22 per cent in 1950-1970.

TABLE I.9. AVERAGE ANNUAL INCREMENT OF THE URBAN POPULATION AND DISTRIBUTION OF THAT INCREMENT BY GEOGRAPHIC REGION, SELECTED PERIODS, 1950-2050

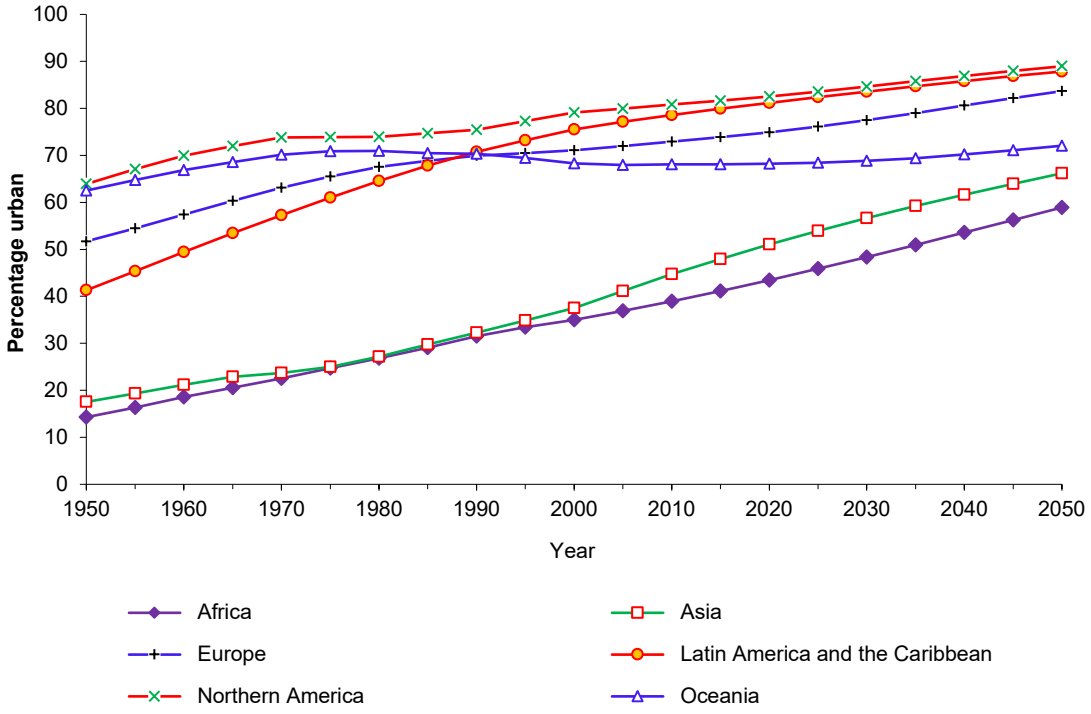
| | *Annual increment of the urban population (millions)* | | | | | *Percentage of annual increment* | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| *Geographic region* | *1950-1970* | *1970-1990* | *1990-2018* | *2018-2030* | *2030-2050* | *1950-1970* | *1970-1990* | *1990-2018* | *2018-2030* | *2030-2050* |
| World | 30.2 | 46.8 | 71.0 | 79.0 | 75.6 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Africa | 2.5 | 5.9 | 12.7 | 23.0 | 33.2 | 8.3 | 12.6 | 17.9 | 29.2 | 44.0 |
| Asia | 13.0 | 26.6 | 45.1 | 44.7 | 33.8 | 43.2 | 56.9 | 63.5 | 56.6 | 44.7 |
| Europe | 6.5 | 4.5 | 1.8 | 1.7 | 1.3 | 21.7 | 9.6 | 2.6 | 2.1 | 1.7 |
| Latin America and the Caribbean | 4.8 | 7.5 | 7.8 | 6.2 | 4.2 | 15.8 | 16.1 | 11.0 | 7.9 | 5.6 |
| Northern America | 3.0 | 2.0 | 3.2 | 3.0 | 2.6 | 10.0 | 4.4 | 4.5 | 3.8 | 3.4 |
| Oceania | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 1.0 | 0.6 | 0.5 | 0.5 | 0.6 |

Levels of urbanization have been rising among all the geographic regions since 1950 and are expected to continue to increase through 2050 (figure I.11). Among the six geographic regions of the world, Asia was the second least urbanized in 1950, with 18 per cent of its population living in urban settlements (table I.10). By 2018, after Asia experienced average annual rates of urbanization (rate of change of the percentage urban) of 1.5 per cent per year in 1950-1990 and 1.6 per cent in 1990-2018, the level of urbanization had more than doubled, to 50 per cent. Despite a rate of urbanization of 1.1 per cent per year that Asia is expected to experience during 2018-2030 (the highest of any geographic region except Africa), only 66 per cent of its population is projected to be urban in 2050, when Asia will still be the second least urbanized geographic region.

TABLE I.10. PERCENTAGE URBAN AND RATE OF URBANIZATION OF THE WORLD, BY GEOGRAPHIC REGION, SELECTED PERIODS, 1950-2050

| | *Percentage urban* | | | | | | *Rate of urbanization (per cent)* | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Geographic region* | *1950* | *1970* | *1990* | *2018* | *2030* | *2050* | *1950-1970* | *1970-1990* | *1990-2018* | *2018-2030* | *2030-2050* |
| World | 29.6 | 36.6 | 43.0 | 55.3 | 60.4 | 68.4 | 1.06 | 0.80 | 0.90 | 0.74 | 0.62 |
| Africa | 14.3 | 22.6 | 31.5 | 42.5 | 48.4 | 58.9 | 2.28 | 1.68 | 1.07 | 1.07 | 0.99 |
| Asia | 17.5 | 23.7 | 32.3 | 49.9 | 56.7 | 66.2 | 1.51 | 1.54 | 1.55 | 1.06 | 0.78 |
| Europe | 51.7 | 63.1 | 69.9 | 74.5 | 77.5 | 83.7 | 1.00 | 0.51 | 0.22 | 0.33 | 0.38 |
| Latin America and the Caribbean | 41.3 | 57.3 | 70.7 | 80.7 | 83.6 | 87.8 | 1.64 | 1.05 | 0.47 | 0.29 | 0.25 |
| Northern America | 63.9 | 73.8 | 75.4 | 82.2 | 84.7 | 89.0 | 0.72 | 0.11 | 0.31 | 0.25 | 0.25 |
| Oceania | 62.5 | 70.2 | 70.3 | 68.2 | 68.9 | 72.1 | 0.58 | 0.01 | -0.11 | 0.08 | 0.23 |

**Figure I.11. Percentage of population residing in urban areas by geographic region, 1950-2050**




The path of urbanization in Africa has been quite similar to that in Asia. In 1950, Africa had the lowest proportion urban of any geographic region (14 per cent), but it experienced the fastest rate of urbanization by far during 1950-1970 (2.3 per cent per year) and the second fastest after Asia during 1990-2018 (1.1 per cent per year). By 2018 its urban share had risen to 43 per cent. Africa's rate of urbanization over the coming years is expected to fall, resulting in a level of urbanization of 59 per cent by 2050. Notably, by 2050 the levels of urbanization of both Africa and Asia will have long since passed the 50 per cent mark (Asia in 2018 and Africa in 2033), making their populations more urban than rural.

In contrast to Africa and Asia, the level of urbanization of Latin America and the Caribbean was already relatively high by 1950, when 41 per cent of its population lived in urban areas. Although this level of urbanization was lower than that of the predominantly urban more developed areas of Europe (52 per cent urban), Northern America (64 per cent) and Oceania (63 per cent), over the next 68 years Latin America and the Caribbean experienced a rapid increase in the proportion urban, much faster than in those three geographic regions, averaging 1.6 per cent per year in 1950-1970 and 1.1 per cent per year in 1970-1990. Consequently, its proportion urban had become essentially the same as that of Europe and Oceania by 1990, and in 2018 it surpassed that of both (81 per cent versus 75 per cent and 68 per cent, respectively). Latin America and the Caribbean and Europe are both expected to experience declines in their annual rates of urbanization, with the result that their proportions urban will increase slowly, reaching 84 per cent in Europe and 88 per cent in Latin America and the Caribbean by 2050.

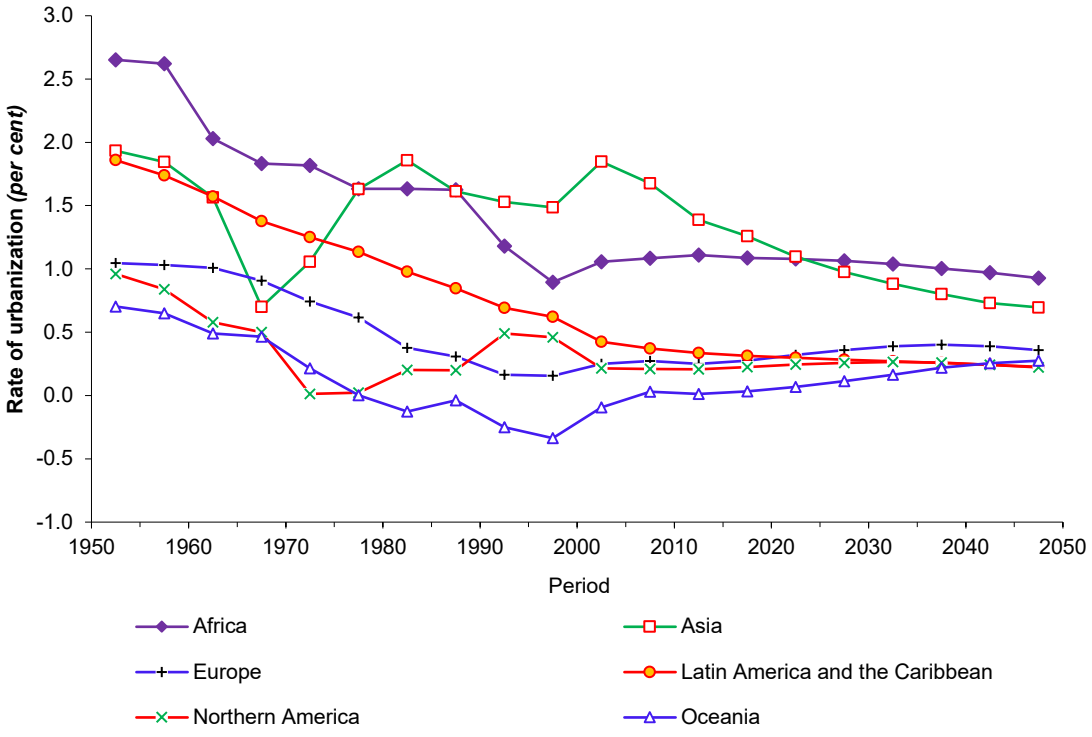
Oceania, the geographic region with by far the smallest population (roughly one-tenth the population of Northern America in 2018), was the second most urbanized geographic region in the world in 1950 (63 per cent living in urban settlements), following Northern America (64 per cent). Since then, these two geographic regions have experienced the slowest rates of urbanization in the world: in 1950-1970, both

experienced rates of urbanization well below 1.0 per cent per year. By 1990-2018, the urbanization rate fell by half in Northern America and became marginally negative for most of the period in Oceania. Nevertheless, Northern America, with 82 per cent of its population living in urban areas, remains the most urbanized geographic region in the world in 2018; Oceania, with 68 per cent urban, ranks fourth after Latin America and the Caribbean and Europe. Percentages urban are expected to rise to 89 per cent in Northern America and 72 per cent in Oceania by 2050.

A different perspective on trends in urbanization in the six geographic regions of the world can be obtained by considering the rates of urbanization over successive five-year periods (figure I.12). There has been considerable variation across geographic regions in the rates of urbanization. Only Latin America and the Caribbean displays a smoothly declining trend, dropping steadily from 1.9 per cent per year in 1950-1955 to 0.3 per cent in 2015-2020 and expected to fall further to 0.2 per cent in 2045-2050. In Africa, where rates of urbanization were the highest in the world from 1950-1955 to 1970-1975, the rate declined markedly to 0.9 per cent per year in 1995-2000 and was 1.1 per cent in 2015-2020. The rate is expected to stabilize near just below this level until the end of the projection period.

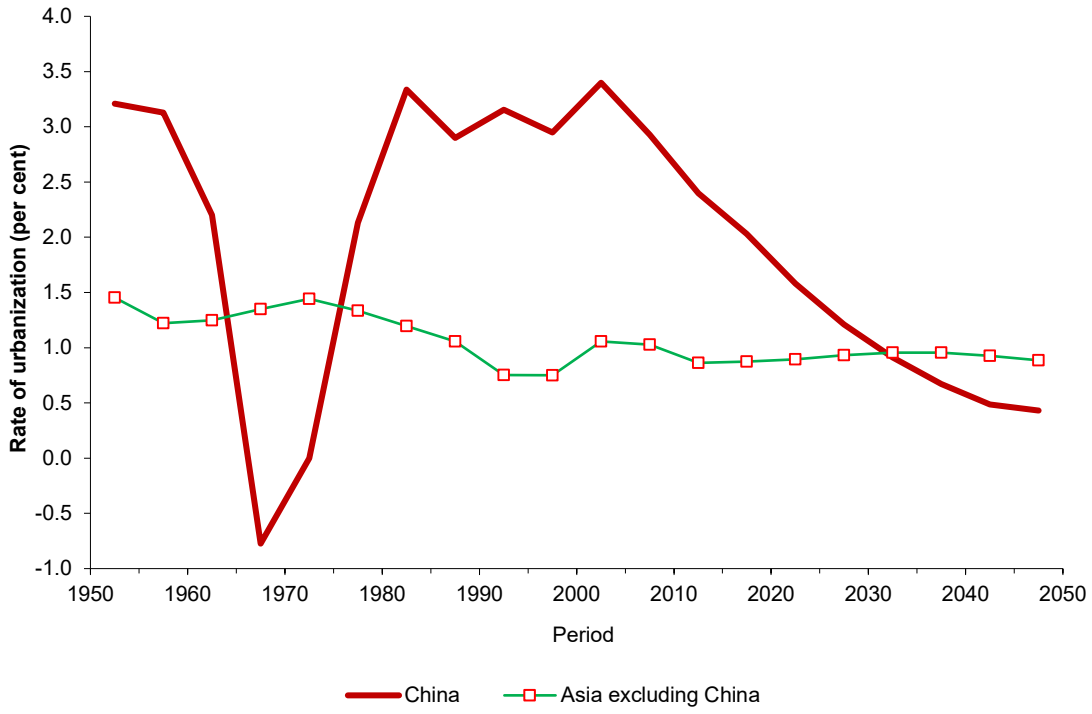
In contrast to Africa and Latin America and the Caribbean, the rate of urbanization in Asia shows no clear trend before 1990, fluctuating sharply, mainly as a result of changes in China, as noted in section A above. Since China is currently home to about one-third of the urban population of Asia, changes in China distort the pattern for Asia as a whole, as is evident from comparing the rates of urbanization in China with those of Asia excluding China (figure I.13). Rates of urbanization in Asia without China show a much smoother pattern but still rise and fall several times, peaking in 1970-1975 at 1.4 per cent per year and again 2000-2005 at 1.1 per cent.

**Figure I.12. Rate of urbanization by geographic region, 1950-2050**



The rates of urbanization of Europe, Northern America and Oceania have been considerably lower than those of the other three geographic regions (figure I.12). In Oceania, that decline led to negative rates of urbanization in 1980-2005. In Northern America the urbanization rate dropped to nearly zero in the 1970s and recovered to between 0.2 per cent and 0.5 per cent per year in the 1980s and 1990s. Europe experienced higher urbanization rates than Northern America and Oceania from 1950-1955 to 1985-1990, but by 1990-2000 its rate of urbanization was just below 0.2 per cent per year, lower than that of Northern America. Over the projection period to 2050, both Europe and Northern America are expected to continue to urbanize at rates ranging from 0.2 per cent to 0.4 per cent per year. Such projected values imply continued increases in the level of urbanization of both geographic regions. The future urbanization rates of Oceania are mostly expected to be lower than those of Northern America until around 2035 and then similar until 2050.

**Figure I.13. Rate of urbanization, China and Asia excluding China, 1950-2050**

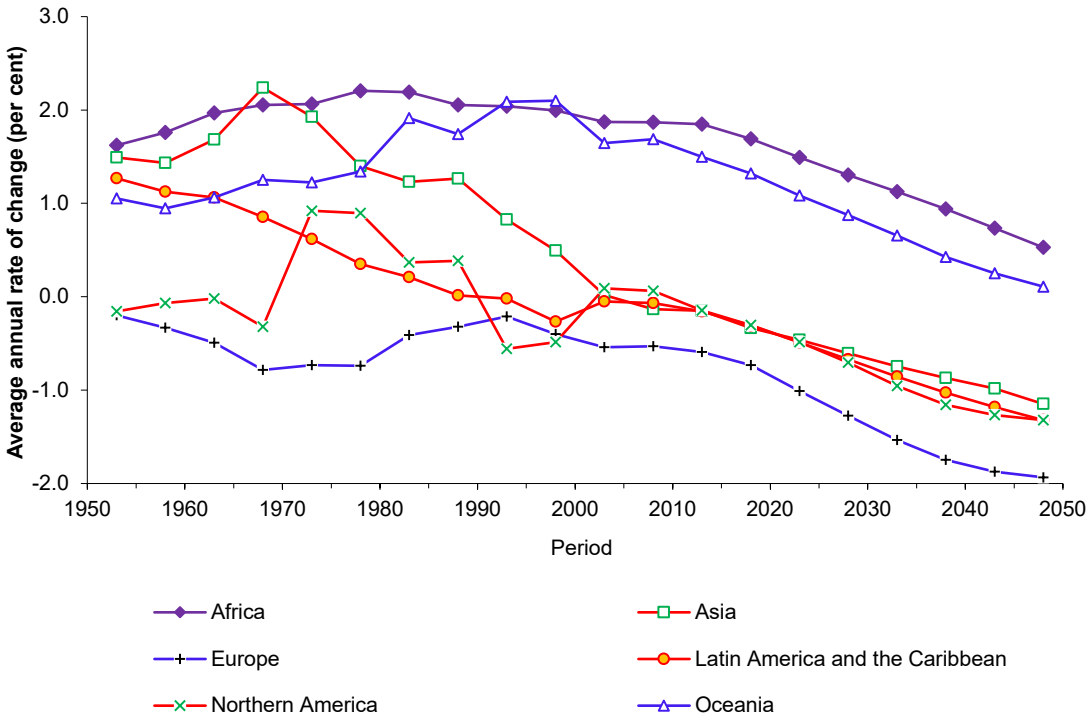



The reduction of the rates of urbanization of Europe and Northern America since the 1970s has sometimes been referred to as counter-urbanization. Such a slowdown in the rate of urbanization can be due to a decrease in the urban growth rate, an increase in the rural growth rate or both. In highly urbanized countries the slowdown was associated with faster growth of non-metropolitan populations compared to those in metropolitan areas (Champion, 1989). In some countries an increase in the rural population growth rate has also been observed. As figure I.14 shows, in Northern America the downward trend in the rate of change of the rural population was temporarily reversed after 1970 and in Europe after 1980. Since such trends in rural population influence levels and rates of urbanization, it is worthwhile to further explore growth rates and population size in rural areas.

In other geographic regions, two types of trends in population growth rates for rural areas are apparent (figure I.14). First, Latin America and the Caribbean has seen its rural growth rate decline fairly steadily,

so that it became essentially zero in 1985-1990 and negative thereafter. Africa and Asia, in contrast, show early peaks and then sustained declines. Both experienced early increases in the rates of growth of their rural populations, during 1950-1985 and 1955-1970, respectively. In the case of Africa, declining mortality combined with sustained high fertility produced the increase in the rural population growth rate, which reached a peak of 2.2 per cent per year in 1975-1985 and is estimated to have declined to 1.7 per cent per year by 2015-2020. In Asia, the highest growth rate of the rural population was in 1965-1970, at 2.2 per cent per year, largely as a result of the high rural growth rate in China. Since then, the growth rate of the rural population of Asia has been declining, and since 2005-2010 has been negative.

**Figure I.14. Average annual rate of change of the rural population by geographic region, 1950-2050**




For all six geographic regions, rural population growth rates are projected to fall through 2045-2050 (figure I.14). By the end of the projection period, the rural population growth rates will still vary considerably across geographic regions. By 2045-2050, Europe's rural population is expected to be declining at a rate of 1.9 per cent per year; those of Asia, Latin America and the Caribbean and Northern America at rates around 1.2 to 1.3 per cent per year. Rural populations of Africa and Oceania are projected to continue to grow even in 2045-2050 by 0.5 per cent and 0.1 per cent, respectively.

With regard to rural population size, the rural population of Africa, which increased more than three-fold between 1950 and 2018, from 196 million to 740 million, is expected to reach 1.0 billion by 2050 (see table I.8). In Oceania, the rural population more than doubled from 5 million in 1950 to 13 million in 2018 and is expected to reach 16 million by 2050. In Asia, the geographic region with by far the largest number of rural inhabitants, the rural population is estimated to have grown from 1.2 billion in 1950 to 2.3 billion in 2018. It is projected to decline to below 1.8 billion by 2050, the same level it first reached around 1974. In Latin America and the Caribbean, the rural population rose from 99 million in 1950 to a peak of 131

million around 1990 and then began to decline; it will drop to 95 million in 2050. In Northern America, the rural population amounted to only 62 million in 1950 and 65 million in 2018; it will likely decline towards 48 million in 2050. But Europe has seen the largest decline in rural population, from 265 million in 1950 to 190 million in 2018, and it is likely to drop further to 117 million in 2050. Given the downward trend in rural growth rates around the world, it is useful to identify when the size of the rural population has peaked or is expected to peak in each geographic region. In Europe, the peak was reached before 1950, in Latin America and the Caribbean the peak was reached in 1993, about 3 years after Northern America, and in Asia the peak was attained around 2002. The peaks in Africa and Oceania are expected not to occur before 2050.

Changes in the size of the rural population of the geographic regions will result in a significant redistribution of the rural population of the world by geographic regions. Three geographic regions will show substantial declines in their share of the world's rural population (table I.8). Europe's share of the rural population has already dropped from 15 per cent in 1950 to 6 per cent in 2018 and is expected to fall to 4 per cent by 2050. Meanwhile, the shares of the world's rural population accounted for by Africa and Asia will both increase markedly. Africa's share, only 11 per cent in 1950 and already at 22 per cent in 2018, will increase further to 34 per cent by 2050. Although its share will fall, Asia will remain the home for the great majority of the world's rural population throughout the projection period. In 2018, 67 per cent of the world's rural population lived in Asia, and by 2050, it is expected that 58 per cent of the world's rural population will be living in Asia, lower than the figure for 1950 (65 per cent).

The rapid growth of the urban populations of Africa, Asia, and Latin America and the Caribbean, combined with the continuing declines in rural population growth in most countries (discussed further in chapter II), has important implications for the geographical distribution of population growth. Between 1950 and 2018, the average annual increment of the urban population of Asia (30 million) accounted for 40 per cent of the average annual increment of world population growth, which is estimated at 75 million. During 2018-2050, when the world's population is expected to increase somewhat more slowly—by 67 million persons annually—the urban areas of Asia will grow by 38 million annually, accounting for 57 per cent of the growth of the world's population. Furthermore, the share of the average annual increment to the world's population accounted for by the growth of the urban population of Africa will more than quadruple, from 10 per cent in 1950-2018 to 44 per cent of that expected during 2018-2050. For Latin America and the Caribbean, the share of world population growth during 2018-2050 (just over 9 per cent) will be similar to that geographic region's share for 1950-2018 (7 per cent). Consequently, between 2018 and 2050, growth of the urban areas of Africa and Asia is anticipated to be equal to the growth of the total population of the world.

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# II. Urban and Rural Population Size and Growth at the Country Level

The previous chapter highlighted the similarities and differences across geographic regions and income groups with respect to the levels and trends of urbanization since 1950, as well as projections to 2050. While that broad aggregate analysis provides a useful summary of the past and future patterns of urbanization, it tends to disguise the considerable variation in the urban transition experience that exists across countries within geographic regions and income groups. To describe that variability, this chapter undertakes an analysis of country-level trends estimated from 1950 to 2018 and projected to 2050. Section A addresses the level of urbanization; section B describes the size and growth of the urban and rural populations; and section C summarises the rate of urbanization (the average annual rate of change of the percentage urban). Results highlight the substantial degree of heterogeneity in the past and future trends of urbanization both across and within geographic regions and income groups.

## A. The level of urbanization

Two types of illustrations reflect the heterogeneity of experience in the global urban transition from 1950 to the present, and the projected future course of the urban transition to 2050. The first illustration, a bubble chart in figure II.1, plots the percentage of the population living in urban settlements at three points in time—estimates for 1950 and 2018 and projections to 2050—for 233 countries or areas. Colours differentiate the various geographic regions, bubble size corresponds to the total population size as indicated in the legend, and black lines mark the regional medians at each point in time. Note that the median reflects the median level of urbanization across the countries that comprise each geographic region, not to be confused with the population-weighted average levels of urbanization presented in the previous chapter. The second illustration, Map II.1, shows three maps with the percentage urban estimated for 1950 and 2018 and projected till 2050 for the 233 countries or areas. Higher levels of urbanization are denoted by darker shading in the colour gradient.

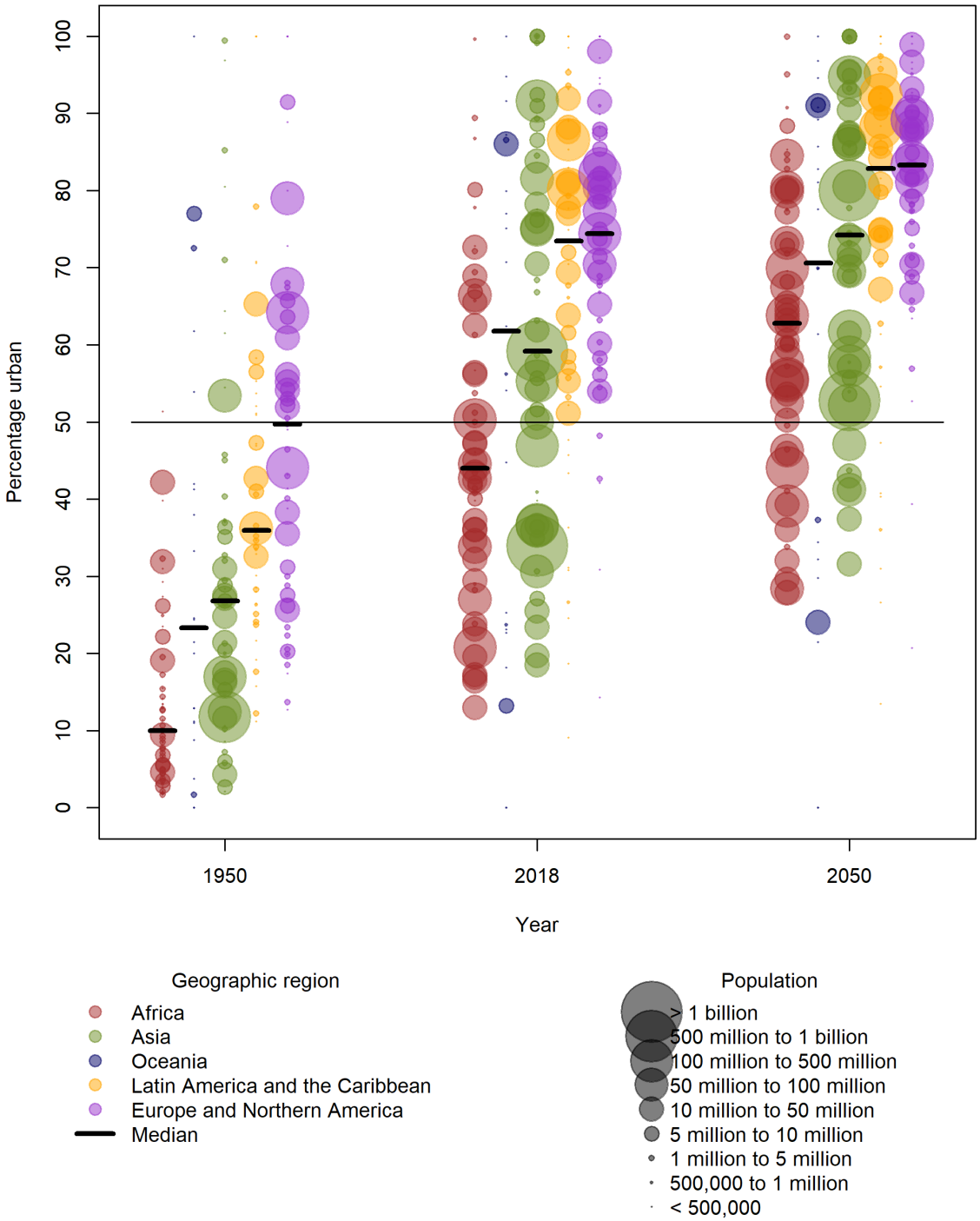
The wide dispersion of countries with respect to the percentage urban shown in figure II.1 indicates that countries have experienced very different levels of urbanization both across and within the geographic regions over time. While the degree of within-region dispersion decreased in Latin America and the Caribbean and "Europe and Northern America", as a group, between 1950 and 2018, countries in Africa and Asia became even more heterogeneous during that period. Projections to 2050 indicate that the urbanization process will continue in all countries, and, while the degree of dispersion will shrink as the percentage urban grows in each geographic region, substantial heterogeneity will persist in Africa, Asia and Oceania, in particular.

### *Africa*

The median level of urbanization across the 58 countries or areas in Africa in 1950 was 10 per cent, but levels of urbanization ranged from below 3 per cent in Uganda, Botswana, Eswatini, Rwanda, Lesotho and Burundi, to 51 per cent in Saint Helena (home to around 5,000 people in 1950). Just nine countries of Africa had levels of urbanization greater than 25 per cent in 1950, but three of the region's largest countries were included among these: South Africa, where 42 per cent of the 14 million residents lived in urban settlements; Egypt, where 32 per cent of the nearly 21 million residents were urban; and Morocco where 26 per cent of the population of 9 million were concentrated in urban areas. Nigeria was Africa's most populous country in 1950, with close to 38 million people, 9 per cent of whom resided in urban settlements.

Since 1950, rapid urbanization has taken place in many populations of Africa. Whereas in 1950 only one country had a population that was predominantly urban (more than 50 per cent urban) in 2018, 24 countries in the region housed more than half their population in urban settlements, with Réunion (100 per cent urban) and Gabon (89 per cent urban) observed to have the highest levels of urbanization in the region.

**Figure II.1. Percentage of population residing in urban areas for all countries of the world, by geographic region and population size, 1950, 2018 and 2050**




Urbanization has not reached such high levels in many other countries or areas in Africa, however. In 2018, nearly 60 per cent of the populations in the region had urbanization levels below 50 per cent, and in nine countries less than one-quarter of the population resided in urban settlements. The least urbanized countries in Africa in 2018 were Burundi (13 per cent urban), and Niger (16 per cent urban) and Malawi (17 per cent urban).

In most of Africa, the urbanization process over the last several decades occurred in tandem with rapid population growth. For example, the United Republic of Tanzania grew from 7.7 million people in 1950 to 59 million in 2018 at the same time the proportion of the population residing in urban settlements increased from 3 per cent to 34 per cent. Similarly, the population of Ghana grew from 5.0 million in 1950 to 29 million in 2018 while the proportion urban has increased from 15 per cent to 56 per cent.

Each of Africa's 58 countries or areas is projected to further urbanize by 2050, when 44 (76 per cent) will be more than 50 per cent urban, of which 16 will be more than 75 per cent urban. However, substantial heterogeneity in the level of urbanization is projected to persist in the region. Although no African country is projected to be less than 25 per cent urban by 2050, 8 countries will be less than 40 per cent urban, including some of the region's most populous countries. Ethiopia is projected to grow from 108 million inhabitants in 2018 to 191 million in 2050 while the proportion urban is projected to increase from 21 per cent to 39 per cent, and in Uganda, 44 per cent of the projected 106 million inhabitants in 2050 are expected to live in urban settlements.

*Oceania*

The distribution in the levels of urbanization in 1950 across Oceania's countries is much wider than in Africa, reflecting substantial diversity among the 23 countries or areas comprised by the region. Nauru, for instance, has been considered to be 100 per cent urban since before 1950, while the islands of Wallis and Futuna have been considered 100 per cent rural. Australia and New Zealand, the largest populations in Oceania in 1950 with 8.2 million and 1.9 million people, respectively, were more than 70 per cent urban, while in the third largest country, Papua New Guinea, less than 2 per cent of its 1.7 million inhabitants were residing in urban settlements.

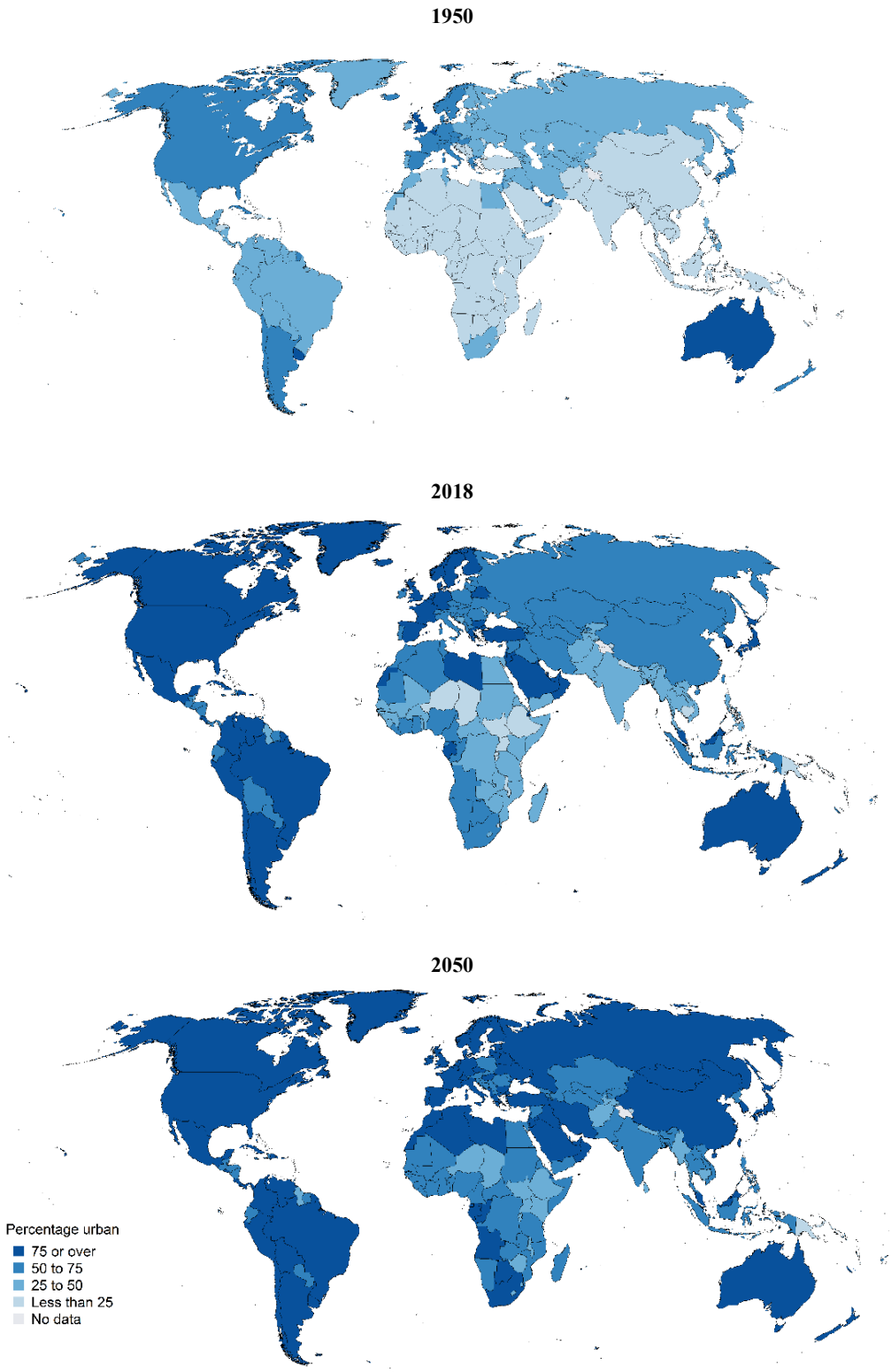
The median level of urbanization in Oceania more than doubled from 23 per cent in 1950 to 61 per cent in 2018, but the range of levels across countries in the region remains wide. The population of Australia has nearly tripled to almost 25 million in 2018 and has become 86 per cent urban. At the other end of the distribution, the population of Papua New Guinea has grown in size to surpass New Zealand as the second most populous country in the region at the same time it has urbanized, such that 13 per cent of the 8.4 million inhabitants in 2018 resided in urban settlements.

The bimodal distribution of Oceania's populations is projected to persist to 2050, at which point the median level of urbanization for the region will have risen to 71 per cent. Australia and New Zealand are both projected to become 91 per cent urban, while the level of urbanization in Papua New Guinea, still low from a global perspective at 24 per cent in 2050, will have nearly doubled from its 2018 level.

*Asia*

While the median level of urbanization across the 51 countries of Asia in 1950 was only 27 per cent, nine countries or areas in the region had already reached high levels of urbanization above 50 per cent, including Japan where 53 per cent of the population of 83 million resided in urban settlements. The levels of urbanization in Asia in 1950 ranged from a low of 2.1 per cent in Bhutan to a high of 99 per cent in Singapore. In both China and India, the world's largest populations in 1950 with 554 million and 376 million inhabitants, respectively, the proportion of residents concentrated in urban settlements was below 20 per cent.

**Map II.1. Percentage of population residing in urban areas, 1950, 2018 and 2050**




The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. Final boundary between the Republic of Sudan the Republic of South Sudan has not yet been determined. A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

United Nations Department of Economic and Social Affairs/Population Division

Between 1950 and 2018, the median level of urbanization in Asia increased from 27 per cent to 59 per cent. In 2018, 19 countries in Asia were more than 75 per cent urban, including several of the region's most populous countries, such as Japan (92 per cent urban), the Republic of Korea (82 per cent urban), and Saudi Arabia (84 per cent urban). China's population has grown to 1.4 billion people in 2018, 59 per cent of whom resided in urban settlements. Indonesia has surpassed the 55 per cent mark as well; 55 per cent of its 267 million inhabitants resided in urban settlements in 2018. Whereas in 1950, 23 countries in Asia had levels of urbanization below 25 per cent, in 2018 just 3 countries did, including Nepal (20 per cent) and Sri Lanka (19 per cent urban) and Cambodia (21 per cent urban). The population size of India more than tripled since 1950 to 1.35 billion and the level of urbanization nearly doubled, reaching 34 per cent in 2018.

Projections indicate that by 2050, half of Asia's countries will have levels of urbanization greater than 74 per cent and 44 of the 51 countries (86 per cent) will be more than 50 per cent urban. After Hong Kong, Macao and Singapore, which are projected to remain 100 per cent urban through 2050, the most urbanized populations in Asia will be Kuwait, Qatar, Israel, Jordan, Oman and Japan. Cambodia, Nepal and Sri Lanka are projected to remain Asia's least urbanized countries in 2050, although they all are expected to urbanize to levels above 30 per cent.

*Latin America and the Caribbean*

In general, the more populous countries or areas of Latin America and the Caribbean tended to be more urbanized than the less populous ones in 1950. Of the 24 countries or areas with levels of urbanization below the median 36 per cent for the region, 18 had fewer than 2 million residents and 8 were islands with populations of less than 100,000 inhabitants. The region's largest country in 1950, Brazil with close to 54 million inhabitants, was 36 per cent urban, while in Mexico, the second most populous country with 28 million inhabitants, 43 per cent lived in urban settlements. In 1950, the lowest levels of urbanization across the 48 countries or areas of Latin America and the Caribbean were in the British Virgin Islands (11 per cent urban) and Haiti (12 per cent urban), while the highest levels were in Anguilla, Sint Maarten and the Cayman Islands (each 100 per cent urban), followed by Uruguay (78 per cent urban).

In 2018, all countries of Latin America and the Caribbean with more than 2 million inhabitants were more than 50 per cent urban and the median for the region overall had risen to 73.5 per cent. Anguilla, Sint Maarten and the Cayman Islands remained 100 per cent urban in 2018, and were followed in terms of the level of urbanization by Guadeloupe (99 per cent urban), the US Virgin Islands (96 per cent urban), Uruguay (95 per cent urban), Puerto Rico (94 per cent urban), Turks and Caicos Islands (93 per cent urban) and Argentina (92 per cent urban). Brazil's total population remained the largest in the region and an estimated 87 per cent of the 211 million people in 2018 resided in urban settlements. Mexico's population grew to 131 million in 2018 and 80 per cent lived in urban settlements.

In 2050, the median level of urbanization in Latin America and the Caribbean is projected to reach 83 per cent, and all the countries with a population of at least 2 million will be at least 65 per cent urban. Seventeen countries or areas in the region will be more than 90 per cent urban, including, in order of the level of urbanization in 2050: Anguilla, Sint Maarten, the Cayman Islands, Guadeloupe, the US Virgin Islands, Uruguay, Turks and Caicos Islands, Puerto Rico, Argentina, Martinique, Brazil, the Dominican Republic, Curaçao, Venezuela (Bolivarian Republic of), Chile, French Guiana and Costa Rica.

*Europe and Northern America*

Among the 53 countries or areas of Europe and Northern America, the lowest levels of urbanization in 1950 were observed in Montenegro (13 per cent) and Bosnia and Herzegovina (14 per cent), while the highest were in Bermuda, Monaco, the Holy See and Gibraltar (each 100 per cent) followed by Belgium

(92 per cent). Only 8 countries in the regional group had levels of urbanization above 75 per cent, and only one of these – the United Kingdom, which was 79 per cent urban in 1950 – had a population greater than 10 million. The United States of America, with 159 million people in 1950, was 64 per cent urban, while the former-Soviet Republic that is today's Russian Federation was home to 103 million people, 44 per cent of whom resided in urban settlements. As in Latin America and the Caribbean, the less urbanized countries in Europe and Northern America tended to be those with smaller populations. Of the ten countries in the region with levels of urbanization below 25 per cent in 1950, six had populations smaller than 2 million and the remaining four had between 2 million and 7 million inhabitants. Eight of the ten least urbanized countries in Europe in 1950 are located on the Balkan Peninsula.[34]

In 2018, the median level of urbanization across countries of Europe and Northern America was higher than in all other regions, at 74 per cent, and 40 of the 53 countries or areas (75 per cent) countries were more than 60 per cent urban. Among the countries in the region with at least 90,000 inhabitants in 2018, Belgium remained the most urbanized, with 98 per cent of its population concentrated in urban settlements, followed by Malta, with 95 per cent urban in 2018, Iceland (94 per cent urban) and the Netherlands (92 per cent urban). Thirteen countries in Europe and Northern America were less than 60 per cent urban in 2018. Romania was the most populous among these, where 54 per cent of the nearly 20 million inhabitants resided in urban settlements. The most populous country in the group, the United States with 327 million inhabitants, was 82 per cent urban in 2018, while the second most populous, the Russian Federation with 144 million inhabitants, was 74 per cent urban.

By 2050, all but four countries in Europe are projected to be at least 60 per cent urban, and two of them (the Faroe Islands, and the Republic of Moldova) will be more than 50 per cent urban. Liechtenstein and the Channel Islands are projected to be the least urbanized among the 53 countries, with projected levels of urbanization of 21 per cent and 39 per cent, respectively. The median level of urbanization among the 53 countries of Europe and Northern America is projected to rise to 83 per cent and 17 countries will be more than 90 per cent urban, including and Sweden (93 per cent urban) and Denmark (92 per cent urban), among others.[35]

*The world's most urbanized countries*

The number of highly urbanized countries has increased over time. Table II.1 lists the countries or areas with 90 per cent or more of their population residing in urban areas in 1950, 1990, 2018 and 2050. Of the 201 countries or areas considered, only three counted more than 90 per cent of their population living in urban settlements in 1950, including Singapore, Macao and Belgium (table II.1). The other four highly urbanized countries or areas in 1950, shown at the top of figure II.1, are small island or city states with a population well under 90,000 inhabitants in 2018, including Anguilla, Holy See, Malta and Nauru.

[34] Including Albania, Bosnia and Herzegovina, Croatia, Montenegro, the Republic of Moldova, Serbia, Slovenia, and TFYR Macedonia.

[35] In addition to the Sweden and Denmark, the other countries or areas of Europe projected to be at least 90 per cent urban by 2050 include: Andorra, Belgium, Bermuda, Gibraltar, Greenland, Holy See, Iceland, Luxembourg, Malta, Monaco, Norway, the Netherlands, Saint Pierre and Miquelon, and San Marino.

TABLE II.1. COUNTRIES OR AREAS WITH MORE THAN 90 PER CENT OF THEIR POPULATION RESIDING IN URBAN AREAS, IN 1950, 1990, 2018 AND 2050*

| *Rank* | *Country or area* | *Percentage urban in 1950* | *Rank* | *Country or area* | *Percentage urban in 1990* | *Rank* | *Country or area* | *Percentage urban in 2018* | *Rank* | *Country or area* | *Percentage urban in 2050* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Singapore | 99.4 | 1 | Singapore | 100.0 | 1 | China, Macao SAR | 100.0 | 1 | Kuwait | 100.0 |
| 2 | China, Macao SAR | 96.9 | 2 | China, Macao SAR | 99.8 | 2 | Kuwait | 100.0 | 2 | China, Hong Kong SAR | 100.0 |
| 3 | Belgium | 91.5 | 3 | China, Hong Kong SAR | 99.5 | 3 | Singapore | 100.0 | 3 | China, Macao SAR | 100.0 |
| | | | 4 | Kuwait | 98.0 | 4 | China, Hong Kong SAR | 100.0 | 4 | Singapore | 100.0 |
| | | | 5 | Belgium | 96.4 | 5 | Réunion | 99.6 | 5 | Réunion | 99.9 |
| | | | 6 | Guadeloupe | 96.4 | 6 | Qatar | 99.1 | 6 | Qatar | 99.7 |
| | | | 7 | Puerto Rico | 92.9 | 7 | Guadeloupe | 98.5 | 7 | Guadeloupe | 99.0 |
| | | | 8 | Qatar | 92.8 | 8 | Belgium | 98.0 | 8 | Belgium | 98.9 |
| | | | 9 | Guam | 90.8 | 9 | United States Virgin Islands | 95.7 | 9 | United States Virgin Islands | 97.6 |
| | | | 10 | Iceland | 90.8 | 10 | Uruguay | 95.3 | 10 | Uruguay | 97.4 |
| | | | 11 | Malta | 90.4 | 11 | Guam | 94.8 | 11 | Guam | 96.8 |
| | | | 12 | Israel | 90.4 | 12 | Malta | 94.6 | 12 | Netherlands | 96.6 |
| | | | | | | 13 | Iceland | 93.8 | 13 | Malta | 96.6 |
| | | | | | | 14 | Puerto Rico | 93.6 | 14 | Iceland | 95.8 |
| | | | | | | 15 | Israel | 92.4 | 15 | Puerto Rico | 95.7 |
| | | | | | | 16 | Argentina | 91.9 | 16 | Israel | 95.4 |
| | | | | | | 17 | Japan | 91.6 | 17 | Jordan | 95.3 |
| | | | | | | 18 | Netherlands | 91.5 | 18 | Luxembourg | 95.1 |
| | | | | | | 19 | Luxembourg | 91.0 | 19 | Argentina | 95.1 |
| | | | | | | 20 | Jordan | 91.0 | 20 | Gabon | 95.0 |
| | | | | | | | | | 21 | Oman | 94.9 |
| | | | | | | | | | 22 | Japan | 94.7 |
| | | | | | | | | | 23 | Lebanon | 93.4 |
| | | | | | | | | | 24 | Sweden | 93.2 |
| | | | | | | | | | 25 | Bahrain | 93.2 |
| | | | | | | | | | 26 | Martinique | 92.6 |
| | | | | | | | | | 27 | Brazil | 92.4 |
| | | | | | | | | | 28 | United Arab Emirates | 92.4 |
| | | | | | | | | | 29 | Denmark | 92.3 |
| | | | | | | | | | 30 | Dominican Republic | 92.0 |
| | | | | | | | | | 31 | Curaçao | 91.9 |
| | | | | | | | | | 32 | Venezuela (Bolivarian Republic of) | 91.9 |
| | | | | | | | | | 33 | Chile | 91.8 |
| | | | | | | | | | 34 | New Zealand | 91.1 |
| | | | | | | | | | 35 | French Guiana | 91.0 |
| | | | | | | | | | 36 | Australia | 91.0 |
| | | | | | | | | | 37 | Western Sahara | 90.7 |
| | | | | | | | | | 38 | Saudi Arabia | 90.4 |
| | | | | | | | | | 39 | Norway | 90.2 |
| | | | | | | | | | 40 | United Kingdom | 90.2 |
| | | | | | | | | | 41 | Costa Rica | 90.1 |
| | | | | | | | | | 42 | Finland | 90.0 |

* For countries or areas with 90,000 inhabitants or more in 2018.

In 2018, there were 20 countries or areas with at least 90,000 inhabitants that had more than 90 per cent of their population residing in urban settlements. This group of highly urbanized countries was comprised primarily of smaller populations, such as Qatar with 99.5 per cent of its 3.2 million residents concentrated in urban settlements, and Israel, where 92.4 per cent of the population of 8.5 million lived in urban areas. Nevertheless, a couple of large countries had moved into this category as well: 91.6 per cent of Japan's population of 127 million and 91.9 per cent of Argentina's population of 44.7 million was concentrated in urban areas in 2018.

By 2050, projections indicate that 42 countries with at least 90,000 inhabitants in 2018 will have more than 90 per cent of their population residing in urban areas, with countries such as Australia, Brazil, Chile, the Netherlands, the United Kingdom, and Venezuela (Bolivarian Republic of), among the larger ones in term of their population.

TABLE II.2. THE TEN LEAST URBANIZED COUNTRIES OR AREAS IN 1950, 1990, 2018 AND 2050*

| *Rank* | *Country or area* | *Percentage urban in 1950* | *Rank* | *Country or area* | *Percentage urban in 1990* |
|---|---|---|---|---|---|
| 1 | Papua New Guinea | 1.7 | 1 | Rwanda | 5.4 |
| 2 | Burundi | 1.7 | 2 | Burundi | 6.3 |
| 3 | Lesotho | 1.8 | 3 | Nepal | 8.9 |
| 4 | Bhutan | 2.1 | 4 | Uganda | 11.1 |
| 5 | Rwanda | 2.1 | 5 | Malawi | 11.6 |
| 6 | Eswatini | 2.2 | 6 | Ethiopia | 12.6 |
| 7 | Nepal | 2.7 | 7 | South Sudan | 13.3 |
| 8 | Botswana | 2.7 | 8 | Solomon Islands | 13.7 |
| 9 | Uganda | 2.8 | 9 | Burkina Faso | 13.8 |
| 10 | Mauritania | 3.1 | 10 | Lesotho | 14.0 |

| *Rank* | *Country or area* | *Percentage urban in 2018* | *Rank* | *Country or area* | *Percentage urban in 2050* |
|---|---|---|---|---|---|
| 1 | Burundi | 13.0 | 1 | Samoa | 21.5 |
| 2 | Papua New Guinea | 13.2 | 2 | Papua New Guinea | 24.0 |
| 3 | Niger | 16.4 | 3 | Saint Lucia | 26.6 |
| 4 | Malawi | 16.9 | 4 | Burundi | 27.9 |
| 5 | Rwanda | 17.2 | 5 | Niger | 28.4 |
| 6 | Samoa | 18.2 | 6 | Rwanda | 29.6 |
| 7 | Sri Lanka | 18.5 | 7 | Tonga | 29.8 |
| 8 | Saint Lucia | 18.7 | 8 | Antigua and Barbuda | 31.0 |
| 9 | South Sudan | 19.6 | 9 | Sri Lanka | 31.6 |
| 10 | Nepal | 19.7 | 10 | Malawi | 32.0 |

* For countries or areas with 90,000 inhabitants or more in 2018.

*The world's least urbanized countries*

Among the countries or areas that are considered to be the least urbanized in the world, the proportion urban has increased substantially. Table II.2 lists, in rank order, the ten least urbanized countries, of those with at least 90,000 inhabitants in 2018, in each of the years 1950, 1990, 2018, and 2050. Of these, Papua New Guinea, Burundi and Lesotho were the least urbanized in 1950 with less than 2 per cent of their population residing in urban areas. Seven of the ten least urbanized countries or areas in 1950 were located in Africa.

In 2018, none of the ten least urbanized countries had a level of urbanization below 10 per cent: Burundi and Papua New Guinea, the two least urbanized countries, had 13 per cent of their population residing in urban settlements. Overall, five of the ten least urbanized countries in 2018 were in sub-Saharan Africa (Burundi, Uganda, Malawi, Niger and South Sudan). Another two were in South Asia (Nepal and Sri Lanka), one in the Caribbean (Saint Lucia) and two in Oceania (Papua New Guinea and Samoa).

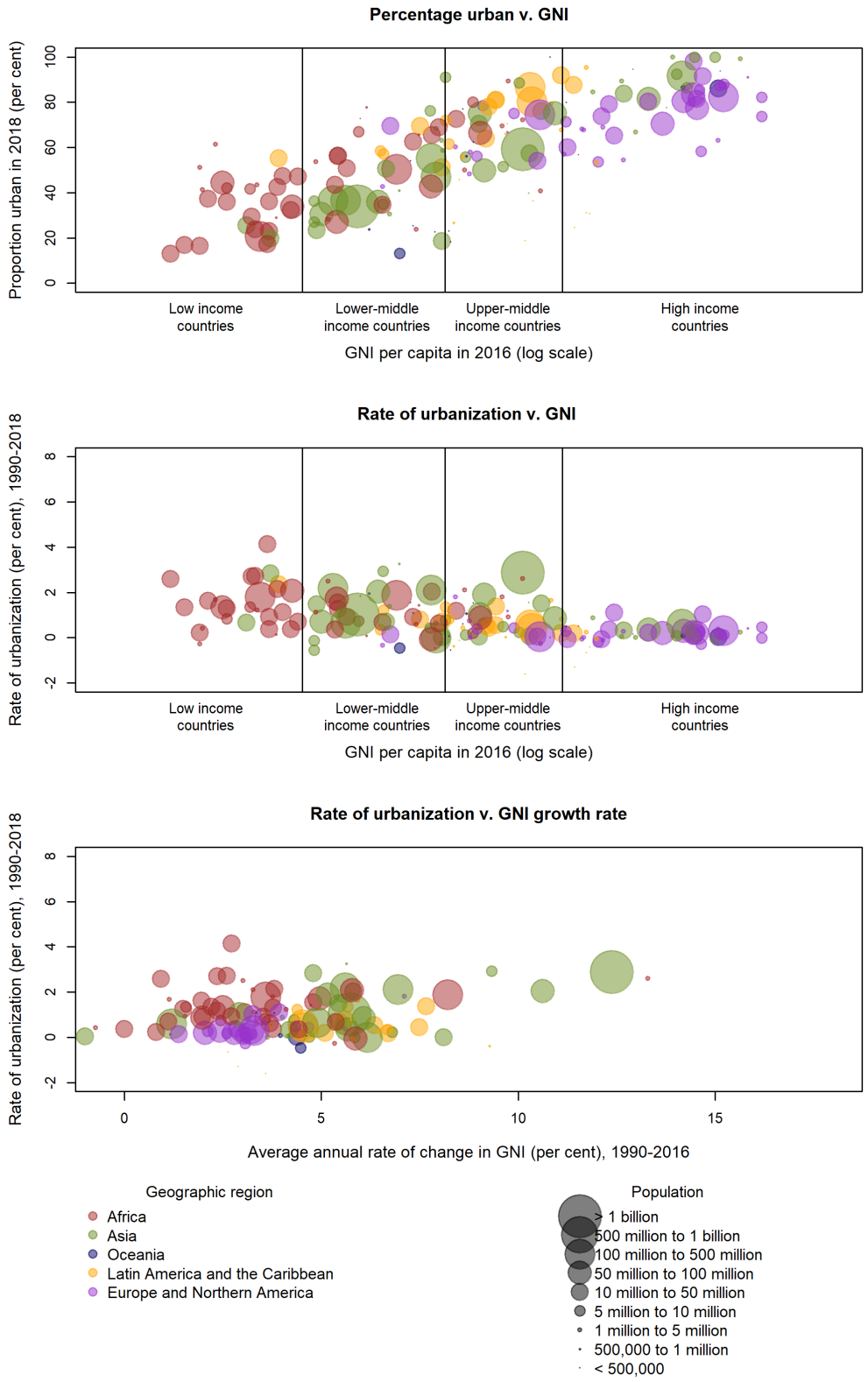
Although the urbanization levels of countries listed in table II.2 are relatively low, these countries proportion urban has been rising in recent decades and is expected to continue to do so into the future. In Burundi, for instance, the level of urbanization rose from 1.7 per cent in 1950 to 13 per cent in 2018 and the country is projected to become 27.9 per cent urban by 2050. In Papua New Guinea, the level of urbanization increased from 1.7 per cent in 1950 to 13.2 per cent in 2018, and the country is expected to become 24 per cent urban by 2050. The proportion urban in Uganda rose from 2.8 per cent in 1950 to 23.8 per cent in 2018, and it is expected to become 44.1 per cent urban in 2050, making it the 27th least urbanized country in the world.

*Urbanization and national income*

In chapter I, it was observed that the level of urbanization tends to increase across groups of countries classified by the level of income, with high income countries in 2018 having a level of urbanization that is well over twice that in the low-income countries (81 per cent compared to 32 per cent). It described the association between national income and the process of urbanization as complex, noting that the causal relationship between the two is likely bidirectional and that effective planning and policies are needed in order for urbanization and economic development to go hand in hand. Figure II.2 explores the associations between urbanization and income growth using country-level estimates of the proportion urban, urbanization rates and gross national income (GNI).

The top chart in figure II.2 illustrates the association between the percentage urban in 2018 and the per capita GNI in 2016. Among the low-income group, most of which are located in Africa, about one-third of the countries had levels of urbanization well below 40 per cent in 2018. Although there is considerable variation in the level of urbanization across countries with similar GNI, which can be partially attributed to variation in the urban definition across countries, there is a clear tendency for the level of urbanization to increase as incomes rise. Among the high-income group, the vast majority of countries had levels of urbanization well above 60 per cent in 2018.

**Figure II.2. Association between levels and rates of urbanization and gross national income (GNI)**



While the association between national income and the level of urbanization is clear, an association between national income and the rate of urbanization is far less apparent. The middle chart of figure II.2 shows only a very weak tendency for the rate of urbanization to decline across countries with increasing levels of national income, and again, the urbanization rates vary considerably across countries with similar income levels, especially within the lower-middle income and upper-middle income groups. Chapter I showed that the population of upper-middle income countries urbanized fastest over the period 1990-2018 at an average annual rate of 1.6 per cent, driven largely by rapid urbanization in China. However, the country-level data displayed in figure II.2 demonstrate that most of the countries with comparatively rapid rates of urbanization were in the lower income categories. Of the 36 countries with urbanization rates greater than 1.5 per cent per year from 1990-2018, just nine were upper-middle income countries; 13 were lower-middle income countries; and 13 were low income countries.

The bottom chart of figure II.2 shows little evidence of an association between the rate of urbanization and the rate of growth in national income. Several countries in Africa urbanized since 1990 despite slow or even negative income growth, while others, particularly in Asia and Latin America, experienced rapid growth of national income concurrent with relatively slow rates of urbanization. The absence of an apparent association here is not to say that urbanization cannot stimulate economic growth or, conversely, that economic growth does not promote urbanization. Rather, it suggests that economic development is neither a necessary precondition for nor a guaranteed consequence of urbanization (United Nations, 2013).

## B. The size and growth of the urban and rural populations

### *Urban population size and growth*

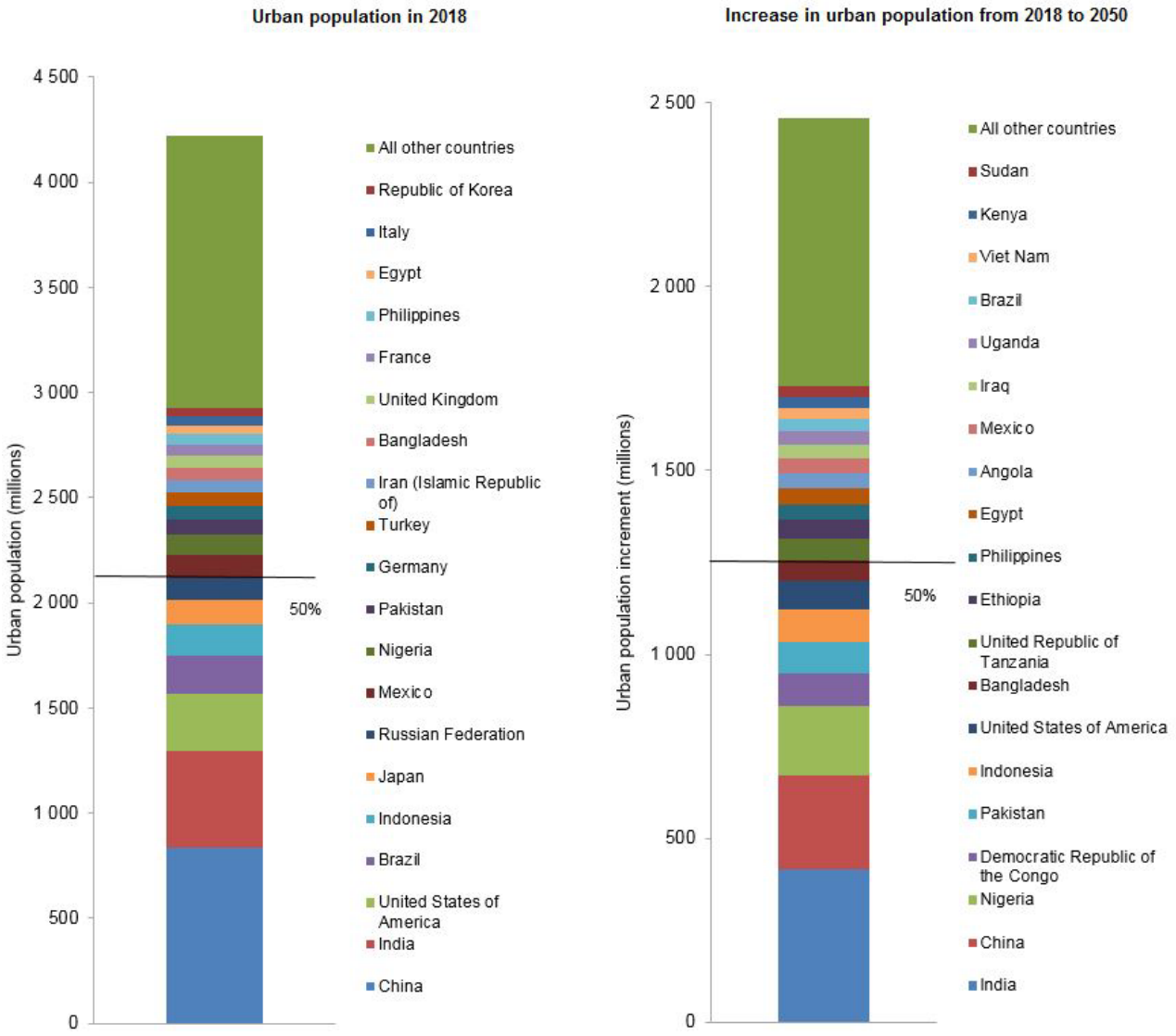
Just a handful of countries accounted for more than half of the world's urban population in 2018, and most of the growth in the global urban population to 2050 is projected to be concentrated in a small number of countries as well. Figure II.3 shows the contribution of selected countries to the global urban population in 2018, as well as the contribution to the increase in the projected urban population by 2050. The countries identified by name on the charts are those that cumulatively account for 70 per cent of the urban population or urban increment, respectively.

In 2018, China had the largest urban population, with 837 million urban dwellers, accounting for 20 per cent of the global total. China was followed by India, with 461 million urban dwellers, and the United States, with 269 million urban dwellers. These three countries, together with Brazil, Indonesia, Japan and the Russian Federation, accounted for just over half of the global urban population. The addition of another 14 countries cumulatively accounted for 70 per cent of the global urban population in 2018.[36]

Taken together, China, India and Nigeria are projected to account for 37 per cent of the increase of nearly 2.5 billion people in the urban population by 2050. India will contribute most to the urban increment with the addition of 416 million urban dwellers, nearly doubling the size of its urban population between 2018 and 2050. China is projected to add 255 million urban dwellers and this increment is equivalent in size to 31 per cent of the urban population in the country in 2018. Nigeria is projected to have the third largest absolute increase in the size of the urban population, adding 189 million urban dwellers between 2018 and 2050, nearly doubling the size of its current urban population. Seven other countries—the Democratic Republic of the Congo, Ethiopia, the United Republic of Tanzania, Bangladesh, Indonesia, Pakistan, and the United States of America—are projected to contribute more than 50 million each to the urban increment between 2018 and 2050 and will constitute together another 20 per cent of the total increase in urban population.

[36] Including, in order of urban population size in 2018, Mexico, Nigeria, Pakistan, Germany, Turkey, Iran (Islamic Republic of), Bangladesh, United Kingdom, France, Philippines, Italy, the Republic of Korea and Argentina.

**Figure II.3. Urban population size in 2018 and increase in the projected urban population between 2018 and 2050 by countries**

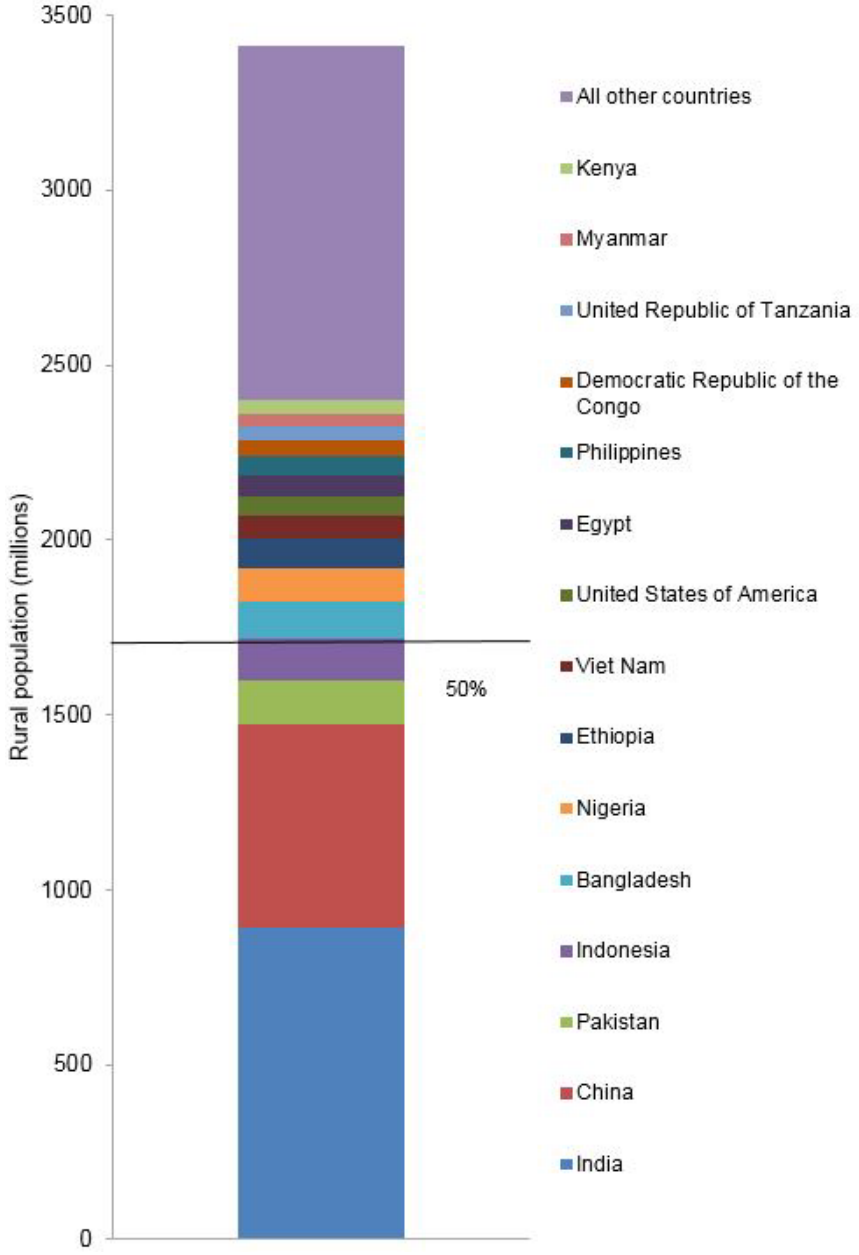



While Japan and the Russian Federation had the 5th and 6th largest urban populations in the world in 2018, neither country is expected to make a significant contribution to global urban population growth to 2050. In fact, the size of the urban population in Japan is projected to decrease, despite anticipated increases in the level of urbanization. Its urban population is projected to shrink by 13 million (12 per cent) between 2018 and 2050. Meanwhile, the urban population of the Russian Federation is projected to increase just by 3.4 million (3.2 per cent) over the same period. In addition to Japan, sixteen other countries are projected to experience a net reduction in the number of urban dwellers between 2018 and 2050, including nine in Europe: Bulgaria, Estonia, Greece, Hungry, Latvia, Lithuania, Malta, Poland and Ukraine.

*Rural population size and growth*

Much like the urban population, the world's rural population in 2018 was concentrated in a handful of countries. Figure II.4 shows the contribution of selected countries to the global rural population in 2018, with those identified by name cumulatively accounting for 70 per cent of rural dwellers worldwide. India was home to the largest rural population, with 893 million, followed by China with 578 million. Together with Pakistan and Indonesia, these countries accounted for over 50 per cent of the world's rural dwellers. Another 11 countries had more than 36 million rural dwellers—Bangladesh, Nigeria, Ethiopia, Viet Nam, the United States of America, Egypt, the Philippines, the Democratic Republic of the Congo, United Republic of Tanzania, Myanmar and Kenya—such that 70 per cent of the global rural population in 2018 was concentrated in just 15 countries.

**Figure II.4. Rural population size in 2018 by countries**



By 2050, the global rural population is projected to decline from its 2018 level, from 3.4 billion to 3.1 billion, reflecting reductions in the rural populations in around two thirds of the 233 countries or areas. The remaining one third of countries is projected to see growth of their rural populations between 2018 and 2050, and in some countries the anticipated growth is substantial. Table II.3 lists the 50 countries with the largest projected absolute increases in their rural populations to 2050, as well as the 50 countries with the largest projected absolute declines in their rural populations to 2050. Ethiopia will add the most rural dwellers between 2018 and 2050—about 31 million, increasing its rural population by 37 per cent—followed by Niger, which is projected to add 30 million rural dwellers, for an increase of 163 per cent.

TABLE II.3. THE 30 COUNTRIES WITH THE LARGEST INCREASES AND DECLINES IN RURAL POPULATION PROJECTED BETWEEN 2018 AND 2050

| *Rank* | *Country* | *Projected change in rural population between 2018 and 2050 (thousands)* | *Relative change in rural population (per cent)* | *Rank* | *Country* | *Projected change in rural population between 2018 and 2050 (thousands)* | *Relative change in rural population (per cent)* |
|---|---|---|---|---|---|---|---|
| 1 | Ethiopia | 31 126 | 36.5 | 1 | China | - 305 515 | -52.9 |
| 2 | Niger | 30 343 | 162.7 | 2 | India | - 110 907 | -12.4 |
| 3 | Nigeria | 26 243 | 27.0 | 3 | Indonesia | - 31 746 | -26.6 |
| 4 | Uganda | 25 289 | 74.9 | 4 | Bangladesh | - 21 334 | -20.2 |
| 5 | Democratic Republic of the Congo | 24 817 | 53.2 | 5 | United States of America | - 15 735 | -27.1 |
| 6 | United Republic of Tanzania | 22 407 | 57.3 | 6 | Russian Federation | - 14 682 | -39.9 |
| 7 | Pakistan | 19 529 | 15.4 | 7 | Thailand | - 14 664 | -42.3 |
| 8 | Kenya | 14 103 | 37.9 | 8 | Viet Nam | - 12 914 | -20.9 |
| 9 | Malawi | 12 426 | 78.1 | 9 | Brazil | - 10 697 | -37.8 |
| 10 | Egypt | 11 175 | 19.6 | 10 | Iran (Islamic Republic of) | - 7 474 | -36.3 |
| 11 | Sudan | 10 993 | 40.5 | 11 | Italy | - 7 106 | -40.5 |
| 12 | Mozambique | 10 760 | 55.1 | 12 | Turkey | - 6 927 | -34.0 |
| 13 | Afghanistan | 9 330 | 34.4 | 13 | Mexico | - 6 578 | -25.4 |
| 14 | Burundi | 8 825 | 90.5 | 14 | Germany | - 6 259 | -33.5 |
| 15 | Chad | 8 603 | 72.8 | 15 | Ukraine | - 5 706 | -42.3 |
| 16 | Burkina Faso | 7 577 | 54.3 | 16 | Poland | - 5 629 | -37.0 |
| 17 | Madagascar | 6 149 | 37.3 | 17 | Japan | - 4 908 | -46.0 |
| 18 | South Sudan | 5 850 | 56.3 | 18 | South Africa | - 4 614 | -23.9 |
| 19 | Zambia | 5 479 | 55.1 | 19 | France | - 4 522 | -35.4 |
| 20 | Mali | 5 181 | 47.0 | 20 | Myanmar | - 4 420 | -11.8 |
| 21 | Rwanda | 5 053 | 48.8 | 21 | Spain | - 3 809 | -41.7 |
| 22 | Somalia | 4 632 | 55.4 | 22 | United Kingdom | - 3 679 | -33.3 |
| 23 | Zimbabwe | 4 566 | 39.8 | 23 | Romania | - 3 543 | -39.3 |
| 24 | Côte d'Ivoire | 4 471 | 36.5 | 24 | Colombia | - 3 404 | -35.8 |
| 25 | Iraq | 4 315 | 37.1 | 25 | Morocco | - 3 187 | -23.5 |
| 26 | Angola | 4 302 | 40.5 | 26 | Sri Lanka | - 2 862 | -16.8 |
| 27 | Guinea | 4 117 | 49.4 | 27 | Dem. People's Republic of Korea | - 2 835 | -29.0 |
| 28 | Senegal | 3 483 | 40.5 | 28 | Republic of Korea | - 2 645 | -27.9 |
| 29 | Papua New Guinea | 3 236 | 44.3 | 29 | Algeria | - 2 593 | -22.6 |
| 30 | Cameroon | 2 636 | 24.5 | 30 | Malaysia | - 2 389 | -31.1 |

In proportional terms, Niger is anticipated to experience the greatest rural population growth between 2018 and 2050, more than doubling its rural population with the addition of 30 million rural dwellers. The rural populations of Burundi, Malawi, Uganda, Chad and Mayotte are projected to increase between 70 per cent and 100 per cent between 2018 and 2050. The largest rural population declines are expected in China,

with a reduction of 306 million rural dwellers, equivalent to more than one half of the rural population in 2018, and in India, where the number of rural residents is expected to decline by 111 million, representing 12 per cent of the rural population in 2018. In proportional terms, Bulgaria is projected to have the largest rural population loss: the rural population in 2050 will be 54 per cent smaller than in 2018, followed by China (53 per cent reduction), and Belarus (50 per cent reduction). Of the 233 countries or areas, 30 are expected to see their rural populations decline by at least 30 per cent between 2018 and 2050.[37]

## C. THE RATE OF URBANIZATION

The rate at which the percentage urban grows or declines is called the urbanization rate. It is a function of the respective rates of change and relative sizes of the urban and rural populations in a country. Consequently, multiple scenarios of urban and rural population change are capable of producing rapid urbanization. Perhaps the most intuitive path to urbanization combines urban population growth with rural population decline. This urban growth-rural decline scenario is typical of what is underway in many countries of Europe and Northern America, as well as parts of Asia and Latin America and the Caribbean. But urban population growth that is concurrent with rural population growth will also lead to the urbanization of a population if the absolute increase in the urban population exceeds the absolute increase in the rural population. This scenario is underway in most of Africa and Asia. In rare instances like those observed in parts of Eastern Europe, urban population decline accompanies a positive rate of urbanization because the absolute decline in the urban population is less than a concurrent absolute decline in the rural population.

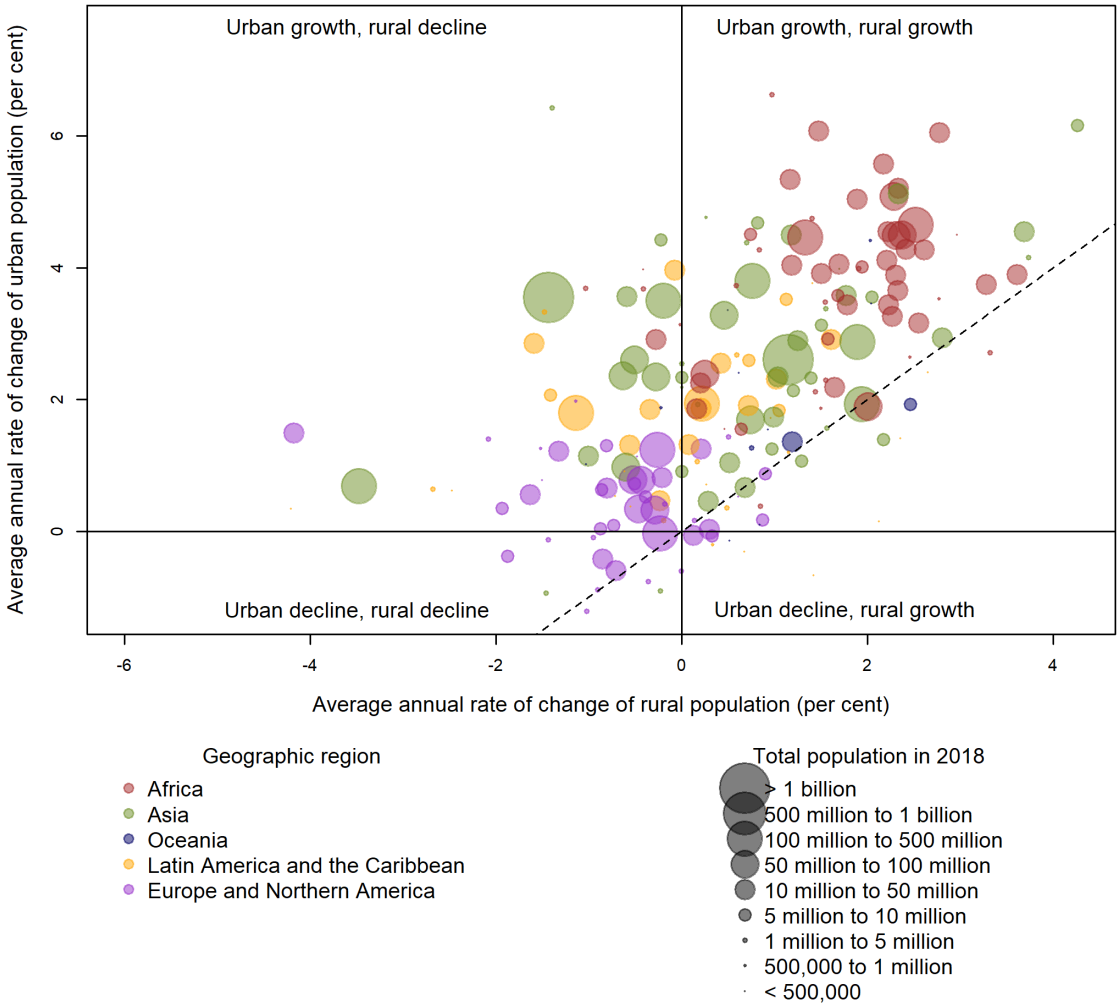
Figure II.5 illustrates the associations between the urban and rural population growth rates and the rate of urbanization for the period 1990-2018, for 201 countries or areas with at least 90,000 inhabitants in 2018. The average annual rates of change of the rural and urban populations are plotted on the horizontal and vertical axes, respectively. As with earlier charts, colours designate the geographic regions, and bubble sizes correspond to population size in 2018. The dashed diagonal line passing through the origin marks the points at which the urban and rural population rates of change are equal.

During the period 1990-2018, about two-thirds of countries experienced reductions in the size of their rural populations, while the remainder saw their rural populations steady or grow. About 91 per cent of countries in Africa, 77 per cent in Oceania and 73 per cent in Asia experienced growth in both urban and rural populations. By contrast, urban population growth concurrent with rural population decline was more typical in Europe and Northern America, and Latin America and the Caribbean.

Of the 201 countries or areas with at least 90,000 inhabitants in 2018, just 12 experienced declines in both their urban and rural populations between 1990 and 2018. Most (10) are located in Northern or Eastern Europe, including Bulgaria, Ukraine, Croatia, Romania, the Russian Federation, Bosnia and Herzegovina, Latvia, the Republic of Moldova, Lithuania and Estonia. The remaining two are Armenia and Georgia, both located in Asia.

[37] Including Belarus, Brazil, Bulgaria, China, China, Taiwan Province, Columbia, Cuba, Czechia, Dominican Republic, France, Germany, Greece, Hungary, Iran (Islamic Republic of), Italy, Japan, Malaysia, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, Serbia, Spain, Thailand, Turkey, Ukraine, and United Kingdom.

**Figure II.5. Average annual rates of change of urban and rural populations in countries by geographic region, 1990-2018***




* For countries or areas with 90,000 inhabitants or more in 2018.

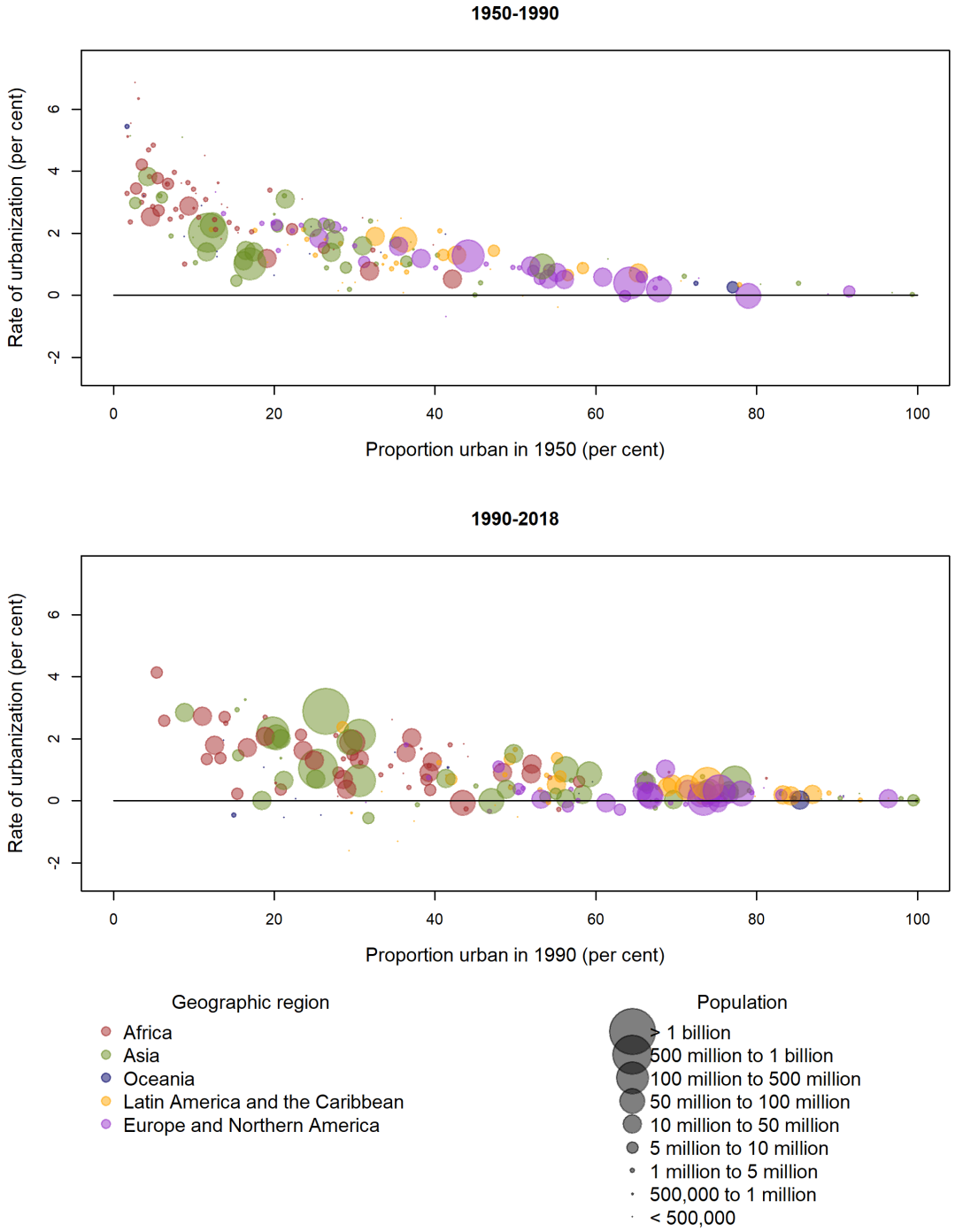
*The association between urbanization levels and urbanization rates*

The pace of urbanization in a country tends to be associated with the level of urbanization, with more urbanized countries urbanizing more slowly than less urbanized countries. Figure II.6 plots the average annual rate of urbanization from 1950-1990 against the proportion urban in 1950 in the top chart, and the average annual rate of urbanization from 1990-2018 against the level of urbanization in 1990 in the bottom chart. Colours denote the various geographic regions, while bubble size corresponds to the size of the population in 1950 and 1990, respectively.

For the period 1950 to 1990, the tendency for the urbanization rate to fall with increasing levels of urbanization is clear. The fastest urbanizing populations during this period with rates of urbanization greater than 6 per cent included small countries of Africa that were less than 4 per cent urban in 1950, including Botswana, Eswatini Lesotho and Mauritania. Of the 72 countries with urbanization rates between 2 per cent and 4 per cent a year between 1950 and 1990, all were less than 41 per cent urban in 1950 and half were less than 21 per cent urban. Of those 39 countries that were already more than 50 per cent urban in 1950,

close to half of which were located in Europe and Northern America, none urbanized at an average rate faster than 1.2 per cent per year between 1950 and 1990.

**Figure II.6. Rate of urbanization and percentage urban in countries by geographic region, 1950-1990 and 1990-2018**




* For countries or areas with 90,000 inhabitants or more in 2018.

During the more recent period from 1990 to 2018, the negative association between the urbanization rate and the percentage urban persists, although there is considerable heterogeneity in the rate of urbanization at most levels of urbanization. For example, among the 54 countries that were between 20 per cent and 40 per cent urban in 1990, the average annual rate of urbanization between 1990 and 2018 ranged from -1.6 per cent in Saint Lucia to 2.9 per cent in China. For about 70 per cent of the countries in this group, the urbanization rate fell between 0.6 per cent and 2.9 per cent. Among the 46 countries that were between 60 per cent and 80 per cent urban in 1990, rates of urbanization were as high as 1.0 per cent per year and as low as -0.03 per cent per year. As countries become very highly urbanized however, the rate of urbanization approaches zero.

*Trends in urbanization rates over time*

Over time, as the levels of urbanization increase in all geographic regions, urbanization rates are slowing. Figure II.7 plots the average annual rates of urbanization for all 233 countries or areas as estimated for the periods 1950-1990 and 1990-2018 and as projected for the period 2018-2050. As in earlier figures, colours differentiate the geographic regions , bubble size corresponds to the population of each country or area and black lines mark the median urbanization rate in each geographic region for each time period.

Across the regional groupings shown in figure II.7, the median rate of urbanization over the period 1950-1990 was highest in Africa, at 2.9 per cent per year, followed by Asia and Oceania (both at about 1.3 per cent per year), Latin America and the Caribbean (1.0 per cent per year), and, finally, Europe and Northern America at 0.9 per cent per year. The median pace of urbanization had slowed in all geographic regions by 1990-2018, when the median rate of change in the proportion urban was 1.2 per cent on the high end in Africa and 0.2 per cent on the low end in Europe and Northern America. Continued reductions in the median rate of urbanization are projected for Africa (1.0 per cent annually over the period 2018-2050), while slight increases are projected for the remaining geographic regions where those countries with negative rates of urbanization over the period 1990-2018 are anticipated to experience increases in the proportion urban by 2050.

As with the levels of urbanization shown in figure II.1, there is great heterogeneity in the rate of urbanization across countries within geographic regions. The fastest urbanizing countries in Europe in 1990-2018 were urbanizing at or above the median pace for Africa, for example. Also 15 countries in Asia (29 per cent) were urbanizing at rates below the median for Europe and Northern America. The degree of heterogeneity both within and across geographic regions in the pace of urbanization is projected to shrink in the coming decades to 2050, over which time 44 per cent of countries are expected to urbanize at average annual rates between 0.2 per cent and 0.8 per cent.

*Countries with the fastest rates of urbanization*

Both in the past and in the future, many of the countries with the fastest estimated and projected rates of urbanization are located in Africa. Table II.4 lists the ten fastest urbanizing countries and areas among those with at least 90,000 inhabitants in 2018, estimated for 1950-1990 and 1990-2018 and projected for 2018-2050. For 1950-1990, seven of the ten fastest urbanizing countries were located in Africa. Botswana urbanized the fastest over that period at an average annual rate of 6.8 per cent, followed by Mauritania at 6.3 per cent and Eswatini at 5.5 per cent. The three non-African countries included among the ten fastest urbanizing from 1950-1990 are Papua New Guinea in Oceania, which urbanized at an average annual rate of 5.4 per cent, and Bhutan and Oman in Asia, both with urbanization rates of 5.1 per cent per year.

**Figure II.7. Rate of urbanization in countries by geographic region, 1950-1990, 1990-2018 and 2018-2050**

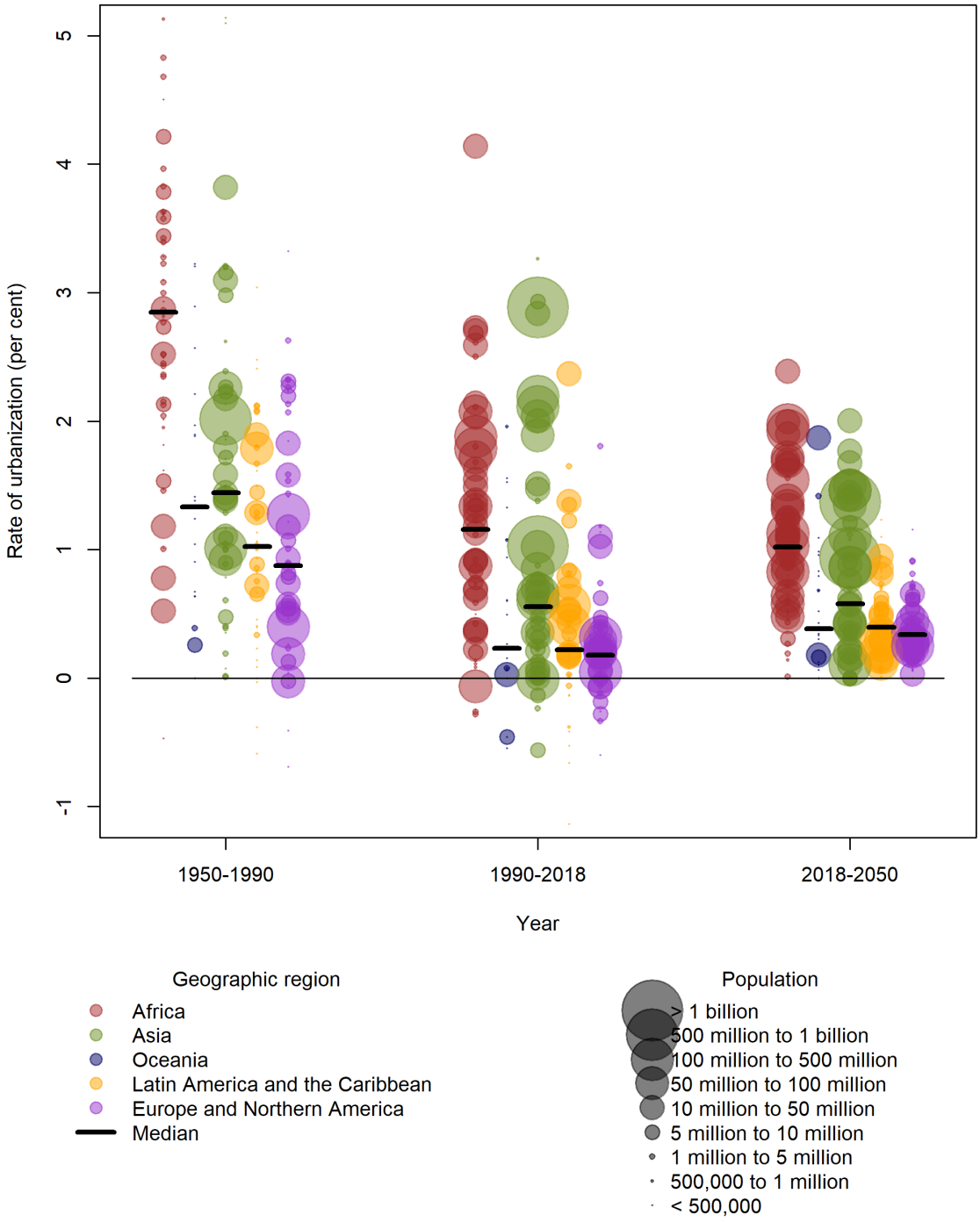


TABLE II.4. THE TEN FASTEST URBANIZING COUNTRIES OR AREAS, 1950-1990, 1990-2018, AND 2018-2050, BY RANK ORDER

| *Rank* | *Country or area* | *Rate of urbanization (per cent) 1950-1990* | *Rank* | *Country or area* | *Rate of urbanization (per cent) 1990-2018* | *Rank* | *Country or area* | *Rate of urbanization (per cent) 2018-2050* |
|---|---|---|---|---|---|---|---|---|
| 1 | Botswana | 6.8 | 1 | Rwanda | 4.1 | 1 | Burundi | 2.4 |
| 2 | Mauritania | 6.3 | 2 | Bhutan | 3.3 | 2 | Nepal | 2.0 |
| 3 | Eswatini | 5.5 | 3 | Lao People's Dem | 2.9 | 3 | Malawi | 2.0 |
| 4 | Papua New Guinea | 5.4 | | Republic | | 4 | Ethiopia | 2.0 |
| 5 | Lesotho | 5.2 | 4 | China | 2.9 | 5 | Uganda | 1.9 |
| 6 | Bhutan | 5.1 | 5 | Nepal | 2.9 | 6 | South Sudan | 1.9 |
| 7 | Oman | 5.1 | 6 | Uganda | 2.7 | 7 | Papua New Guinea | 1.9 |
| 8 | Benin | 4.8 | 7 | Burkina Faso | 2.7 | 8 | Cambodia | 1.8 |
| 9 | Togo | 4.7 | 8 | Eritrea | 2.7 | 9 | Niger | 1.7 |
| 10 | Gabon | 4.5 | 9 | Burundi | 2.6 | 10 | Rwanda | 1.7 |
| | | | 10 | Equatorial Guinea | 2.6 | | | |

* For countries or areas with 90,000 inhabitants or more in 2018.

For 1990-2018, six of the 10 fastest urbanizing countries were in Africa, including Rwanda, Uganda, Burkina Faso, Eritrea, Burundi, and Equatorial Guinea. Another four were located in Asia, including Bhutan, the Lao People's Dem. Republic, China and Nepal. Rwanda urbanized the fastest during the period 1990-2018, with an average annual increase in the proportion urban of 4.1 per cent. Rwanda was followed by Bhutan at 3.3 per cent, and Lao People's Dem Republic at 3.7 per cent.

The fastest rates of urbanization over the period 2018-2050 are projected to be slower than those in the past. Burundi is projected to urbanize fastest in the coming decades, at an average annual rate of 2.4 per cent, followed by Nepal and Malawi, which are projected to urbanize both at 2.0 per cent per year. Seven of the ten countries with the fastest projected urbanization rates between 2018 and 2050 are located in Africa. Meanwhile, Papua New Guinea in Oceania and Cambodia in Asia are projected to urbanize at an average annual rate of 1.9 per cent and 1.8 per cent over that period, respectively.

*Countries with negative rates of urbanization*

Reductions in the proportion urban were unusual over the period from 1950-1990, but became more common over the period 1990-2018. No country is expected to experience a decline in the proportion urban between 2018 and 2050. Table II.5 lists countries or areas with at least 90,000 inhabitants in 2018 that experienced reductions in the proportion urban over the period 1990-2018.

From 1990 to 2018, 33 countries experienced net declines in the proportion urban as reflected in the negative rates of urbanization. With the exception of Northern America, all of the geographic regions are represented on this list, which includes eleven countries in Europe, ten countries in Latin America and the Caribbean, five countries each in Asia, four in Africa and three in Oceania. Average annual rates of urbanization over 1990-2018 among the 33 countries range from -1.61 per cent in Saint Lucia to -0.01 per cent in Philippines.

TABLE II.5. COUNTRIES OR AREAS WITH DECLINING PERCENTAGE URBAN, 1990-2018*

| *Rank* | *Country or area* | *Rate of urbanization (per cent) 1990-2018* |
|---|---|---|
| 1 | Saint Lucia | -1.61 |
| 2 | Antigua and Barbuda | -1.30 |
| 3 | Montserrat | -1.15 |
| 4 | Barbados | -0.65 |
| 5 | Liechtenstein | -0.59 |
| 6 | Tajikistan | -0.55 |
| 7 | Samoa | -0.54 |
| 8 | Aruba | -0.53 |
| 9 | Papua New Guinea | -0.46 |
| 10 | Micronesia (Fed. States of) | -0.46 |
| 11 | Saint Kitts and Nevis | -0.42 |
| 12 | Guyana | -0.38 |
| 13 | Republic of Moldova | -0.33 |
| 14 | Liberia | -0.29 |
| 15 | Austria | -0.27 |
| 16 | Mauritius | -0.26 |
| 17 | Andorra | -0.26 |
| 18 | Saint Helena | -0.24 |
| 19 | Armenia | -0.23 |
| 20 | Slovakia | -0.18 |
| 21 | Kyrgyzstan | -0.14 |
| 22 | Belize | -0.13 |
| 23 | Caribbean Netherlands | -0.13 |
| 24 | Estonia | -0.12 |
| 25 | Poland | -0.07 |
| 26 | Czechia | -0.07 |
| 27 | Egypt | -0.06 |
| 28 | Trinidad and Tobago | -0.06 |
| 29 | Latvia | -0.06 |
| 30 | Channel Islands | -0.05 |
| 31 | Sri Lanka | -0.01 |
| 32 | Switzerland | -0.01 |
| 33 | Philippines | -0.01 |

* For countries or areas with 90,000 inhabitants or more in 2018.

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# III. PATTERNS OF CITY GROWTH

Planning and preparing for the growth of cities of various sizes is essential to maximize the benefits of urbanization and promote sustainable development. Numerous factors can affect the size and growth of cities and the drivers of city growth can vary tremendously both within and across countries as well as over time. Thus, patterns of city size and growth themselves show great variation over space and time. The estimates and projections of the populations of close to 1,900 urban settlements with 300,000 inhabitants or more in 2018 that are published in the *2018 Revision* of *World Urbanization Prospects* and presented in this chapter, illustrate the wide diversity in city growth patterns and size around the world.

## A. THE HIERARCHY OF CITIES AND URBAN SYSTEM

### *The world's urban hierarchy*

Over the past two centuries, a major change has been taking place in the distribution of the world population: the increasing and unprecedented concentration of people in highly urbanized areas known as urban agglomerations. The largest of these agglomerations, at the top end of the urban hierarchy, are those with 10 million inhabitants or more, and have become known as megacities. Thirty-three megacities in Africa, Asia, Europe, Latin America and Northern America account for 7 per cent of the world's total population in 2018. The next size class is composed of large cities with 5 to 10 million inhabitants, which concentrate another 4 per cent of the global population. The other categories of the urban hierarchy are defined as medium-sized cities with 1 to 5 million, cities with 500,000 to 1 million, cities with 300,000 to 500,000 and urban settlements with fewer than 300,000 inhabitants, which in 2018 are home to 12, 5, 4, and 23 per cent of world's total population respectively (table III.1 and figure III.1).

TABLE III.1. POPULATION DISTRIBUTION OF THE WORLD, BY RURAL/URBAN AREA OF RESIDENCE AND SIZE CLASS OF URBAN SETTLEMENT, 1970, 1990, 2018 AND 2030

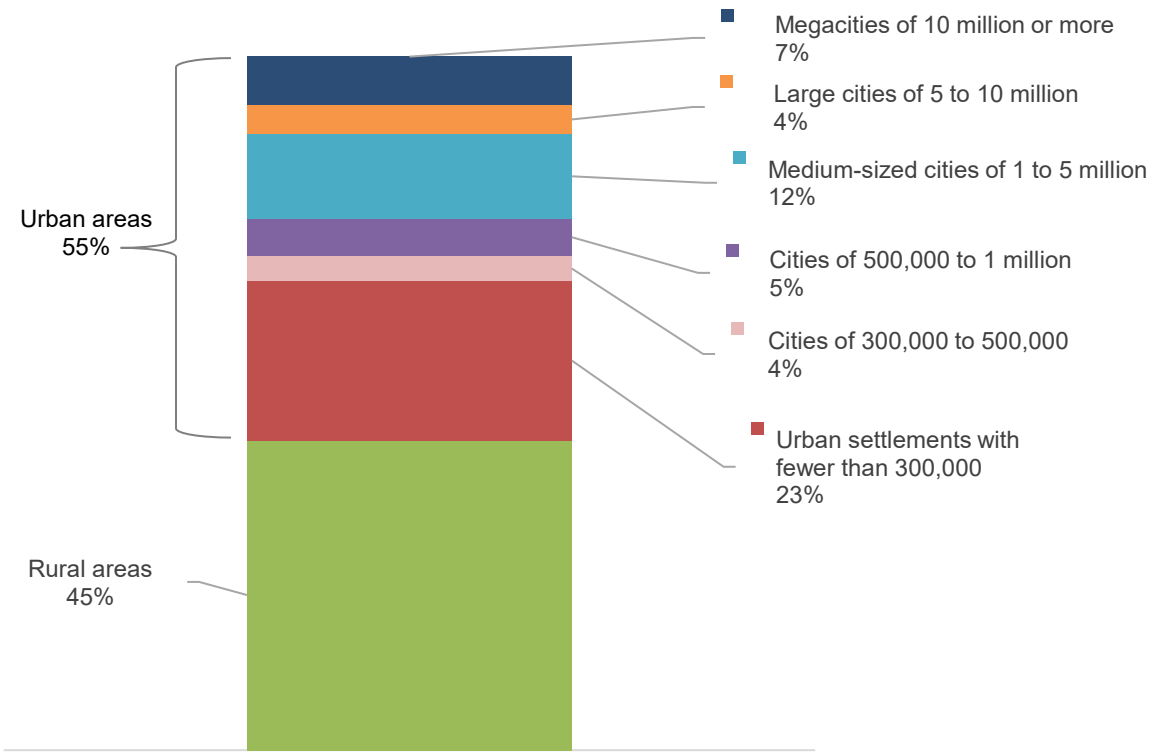
| *Area of residence and size class of urban settlement (number of inhabitants)* | *Population (millions)* | | | | *Percentage* | | | |
|---|---|---|---|---|---|---|---|---|
| | *1970* | *1990* | *2018* | *2030* | *1970* | *1990* | *2018* | *2030* |
| Total | 3 701 | 5 331 | 7 633 | 8 551 | 100.0 | 100.0 | 100.0 | 100.0 |
| Urban area | 1 354 | 2 290 | 4 220 | 5 167 | 36.6 | 43.0 | 55.3 | 60.4 |
| 10 million or more | 55 | 153 | 529 | 752 | 1.5 | 2.9 | 6.9 | 8.8 |
| 5 million to 10 million | 107 | 156 | 325 | 448 | 2.9 | 2.9 | 4.3 | 5.2 |
| 1 million to 5 million | 244 | 467 | 926 | 1 183 | 6.6 | 8.8 | 12.1 | 13.8 |
| 500,000 to 1 million | 131 | 208 | 415 | 494 | 3.5 | 3.9 | 5.4 | 5.8 |
| 300,000 to 500,000 | 87 | 159 | 275 | 320 | 2.3 | 3.0 | 3.6 | 3.7 |
| Fewer than 300,000 | 730 | 1 147 | 1 750 | 1 971 | 19.7 | 21.5 | 22.9 | 23.1 |
| Rural area | 2 346 | 3 041 | 3 413 | 3 384 | 63.4 | 57.0 | 44.7 | 39.6 |

NOTE: The change of the population in each size class from one year to another reflects the growth of the population in existing cities of that size class and the incorporation of the population of new cities into that category.

In 1970, 63 per cent of the total population lived in rural areas, another 20 per cent in urban settlements with fewer than 300,000 inhabitants, and the remaining 17 per cent resided in the other larger cities. In the next two decades, the urban population added almost one billion people, going from 1.3 billion in 1970 to

2.3 billion in 1990. The population in cities of all sizes grew by more than 50 per cent in the same period, including, the population in cities with 300,000 to 500,000 inhabitants, which grew from 87 to 159 million, and in cities from 1 to 5 million inhabitants, which almost doubled in size, from 244 to 467 million. The overall population of megacities, although comparably small in size, increased almost threefold from 55 to 153 million. The population doubled in the group of cities with half a million to 10 million people, and increased by 3.5 times in megacities From 1990 to 2018,. Nevertheless, today, more than two thirds of the population are living in rural areas or urban settlements with fewer than 300,000 inhabitants, and one third lives in larger agglomerations. With increasing urbanization, the percentage of the population living in rural is expected to decrease by 11 per cent through 2030. Still, the rural population is expected to outnumber the urban population in cities of all sizes greater than 300,000 inhabitants in 2030.

**Figure III.1. Population of the world, by area of residence and size class of urban settlement, 2018**




As noted above, the world's population is increasingly concentrated in cities. The large variability in size, morphology and geographical distribution of cities across and within countries needs to be considered in order to successfully implement sustainable and balanced urban and territorial planning, at different geographical scales. For instance, the New Urban Agenda adopted by the international community in 2016, calls for the strengthening of the role of small and intermediate cities and towns, and more generally the cooperation and mutual support among different scales of cities and human settlements. In that regard, it encourages synergies among urban settlements of different sizes and their peri-urban and rural surroundings, in ways that equitable development across the urban-rural continuum would be promoted (UN Habitat, 2017; also see Box III.1).

**BOX III.1. THE DEFINITION OF CITY**

Definitions and criteria to delimit cities and urban areas vary across countries.** Population data on urban residence for a given country may include geographic areas that would not fall within the urbanized territory according to standards applied by other countries. For example, the "city proper", defined by administrative boundaries, may not include suburban areas where a substantial portion of the population working or studying in the central city resides. Furthermore, in some cases, although governed by different local authorities, two or more adjacent cities may form a single urbanized area. For this report two supplementary concepts have been used to improve the comparability of information about city populations across countries and over time. "Urban agglomeration" refers to a contiguous territory inhabited at urban levels of residential density, while "metropolitan area" comprises an urban agglomeration and surrounding areas at a lower settlement density but with strong economic and social linkages to the central city.

* For additional details, please see United Nations (2018a).

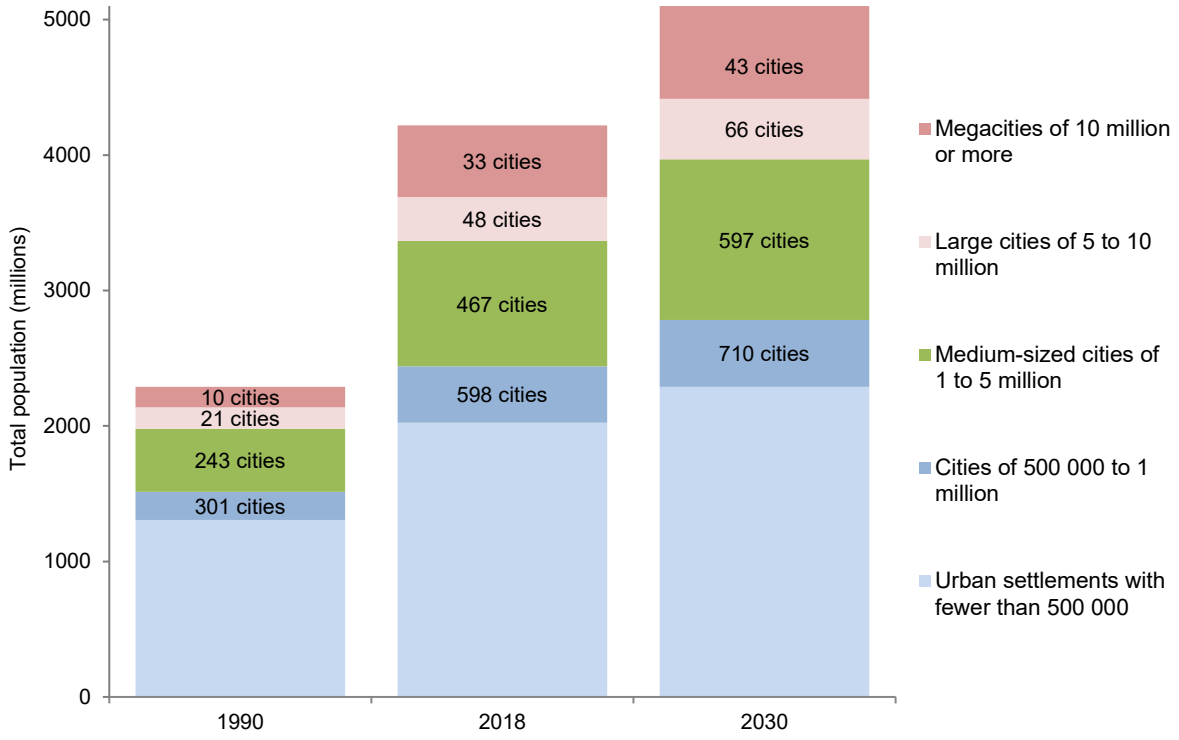
** In the analytical parts of this report the expressions "urban areas" and "cities" are used interchangeably.

Today, most of the urban population of the world lives in urban settlements with fewer than 1 million inhabitants. More precisely, in 2018, two billion people live in urban settlements with fewer than 500,000 inhabitants, and another 400 million in settlements between 500,000 and 1 million, summing up to 58 per cent of the urban population (figure III.2, table III.2). While close to one billion persons will be added to today's urban population by 2030, more than half of the world's urban dwellers will still be living in urban settlements with fewer than 1 million inhabitants, growing from 2.4 to 2.8 billion people. Compared to larger cities, the cities and towns with fewer than 1 million inhabitants are the most prevalent type of urban settlements in all the geographic regions of the world except for Oceania, where most urban residents live in larger cities with 1 million to 5 million people. The number of people living in cities with 500,000 to 1 million inhabitants is expected to grow at a similar pace, increasing from 415 million in 2018 to 494 million in 2030, but continuing to hold only around 10 per cent of the global urban population.

One in five urban dwellers worldwide lives in a medium-sized city with 1 million to 5 million inhabitants. While considered medium-sized by global standards, these cities are, in fact, the largest cities in 85 countries or areas. Examples include Australia, with 5 cities in this category (Sydney, Melbourne, Brisbane, Perth, and Adelaide), Italy with 4 (Rome, Milan, Naples and Turin), Ghana with two (Kumasi and Accra), Morocco with 4 (Casablanca, Rabat, Fès, and Tanger), and Ukraine with 3 (Kiev, Kharkiv, Odesa). While most capital cities of the world are smaller in size, close to 40 per cent of capital cities are medium-sized cities. Most countries in Africa and Asia have capital cities in this size category. The global population living in medium-sized cities nearly doubled between 1990 and 2018, and is expected to increase by another 28 per cent between 2018 and 2030, growing from 926 million to 1.2 billion.

Megacities are notable for their size and concentration of economic activity though they are home to only about one in eight of the world's urban dwellers. In 1990 there were 10 cities with more than 10 million inhabitants, hosting 153 million people, which represents less than 7 per cent of the global urban population. Today, the number of megacities has tripled to 33, and most of them are in Asia, including fiver that have recently joined the group: Bangalore, Bangkok, Jakarta, Lahore and Madras. Globally, the population megacities contain has grown to 529 million, and these agglomerations now account for 13 per cent of the world's urban dwellers.

**Figure III.2. Population and number of cities of the world, by size class of urban settlement, 1970, 1990, 2018 and 2030**




In 2018, the 33 megacities are concentrated in only 20 countries. China alone has six megacities and ten cities with populations between 5 and 10 million in 2018, and it will add 2 more megacities and six more large cities by 2030 (see Box III.2 on the definition of cities in China). India has 5 megacities today, adding two more by 2030 (Ahmadabad and Hyderabad). The two megacities of Brazil are expected to remain the only megacities in the country, as is the case in Japan, Pakistan, and the United States of America. Cairo, Kinshasa and Lagos are the only megacities in Africa in 2018, but two more are expected to emerge by 2030, as Dar es Salaam (Tanzania) and Luanda (Angola) are each projected to grow beyond 10 million inhabitants. The number of large cities with populations between 5 and 10 million in Africa is also expected to increase, from five in 2018 to thirteen in 2030. In Latin America, Bogotá (Colombia) and Lima (Peru) have recently reached 10 million, joining the four pre-existing megacities of the region: Buenos Aires, Mexico City, Rio de Janeiro, and São Paulo.

TABLE III.2. POPULATION DISTRIBUTION AND NUMBER OF URBAN AGGLOMERATIONS OF THE WORLD AND ITS GEOGRAPHIC REGIONS, BY SIZE CLASS OF URBAN SETTLEMENT, 1970, 1990, 2018 AND 2030

| *Geographic region* | *Area of residence and size class of urban settlement (number of inhabitants)* | *Population (millions)* | | | | *Percentage distribution* | | | | *Number of urban agglomerations* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1970 | 1990 | 2018 | 2030 | 1970 | 1990 | 2018 | 2030 | 1970 | 1990 | 2018 | 2030 |
| World | Total urban population | 1 354 | 2 290 | 4 220 | 5 167 | 100.0 | 100.0 | 100.0 | 100.0 | ... | ... | ... | ... |
| | 10 million or more | 55 | 153 | 529 | 752 | 4.0 | 6.7 | 12.5 | 14.6 | 3 | 10 | 33 | 43 |
| | 5 million to 10 million | 107 | 156 | 325 | 448 | 7.9 | 6.8 | 7.7 | 8.7 | 15 | 21 | 48 | 66 |
| | 1 million to 5 million | 244 | 467 | 926 | 1 183 | 18.0 | 20.4 | 21.9 | 22.9 | 127 | 243 | 467 | 597 |
| | 500,000 to 1 million | 131 | 208 | 415 | 494 | 9.7 | 9.1 | 9.8 | 9.6 | 190 | 301 | 598 | 710 |
| | 300,000 to 500,000 | 87 | 159 | 275 | 320 | 6.4 | 6.9 | 6.5 | 6.2 | 225 | 416 | 714 | 827 |
| | Fewer than 300,000 | 730 | 1 147 | 1 750 | 1 971 | 53.9 | 50.1 | 41.5 | 38.1 | ... | ... | ... | ... |
| Africa | Total urban population | 83 | 200 | 548 | 824 | 100.0 | 100.0 | 100.0 | 100.0 | ... | ... | ... | ... |
| | 10 million or more | — | — | 47 | 91 | — | — | 8.5 | 11.0 | — | — | 3 | 5 |
| | 5 million to 10 million | 6 | 10 | 30 | 81 | 6.8 | 4.9 | 5.5 | 9.8 | 1 | 1 | 5 | 13 |
| | 1 million to 5 million | 10 | 46 | 122 | 167 | 11.9 | 22.9 | 22.2 | 20.3 | 7 | 24 | 55 | 81 |
| | 500,000 to 1 million | 8 | 20 | 50 | 77 | 9.8 | 10.2 | 9.1 | 9.3 | 12 | 29 | 71 | 111 |
| | 300,000 to 500,000 | 7 | 17 | 34 | 45 | 7.9 | 8.3 | 6.2 | 5.4 | 17 | 43 | 87 | 117 |
| | Fewer than 300,000 | 53 | 107 | 266 | 364 | 63.6 | 53.6 | 48.5 | 44.2 | ... | ... | ... | ... |
| Asia | Total urban population | 507 | 1 040 | 2 266 | 2 802 | 100.0 | 100.0 | 100.0 | 100.0 | ... | ... | ... | ... |
| | 10 million or more | 39 | 85 | 335 | 490 | 7.6 | 8.2 | 14.8 | 17.5 | 2 | 5 | 20 | 27 |
| | 5 million to 10 million | 32 | 98 | 201 | 246 | 6.3 | 9.5 | 8.9 | 8.8 | 5 | 14 | 28 | 34 |
| | 1 million to 5 million | 96 | 186 | 483 | 651 | 18.9 | 17.9 | 21.3 | 23.2 | 47 | 99 | 250 | 330 |
| | 500,000 to 1 million | 42 | 84 | 230 | 274 | 8.2 | 8.1 | 10.2 | 9.8 | 62 | 121 | 333 | 387 |
| | 300,000 to 500,000 | 29 | 68 | 139 | 168 | 5.8 | 6.5 | 6.2 | 6.0 | 77 | 178 | 362 | 429 |
| | Fewer than 300,000 | 270 | 519 | 877 | 974 | 53.2 | 49.9 | 38.7 | 34.7 | ... | ... | ... | ... |
| Europe | Total urban population | 415 | 505 | 553 | 573 | 100.0 | 100.0 | 100.0 | 100.0 | ... | ... | ... | ... |
| | 10 million or more | — | — | 23 | 35 | — | — | 4.2 | 6.1 | — | — | 2 | 3 |
| | 5 million to 10 million | 23 | 25 | 26 | 18 | 5.5 | 5.0 | 4.8 | 3.2 | 3 | 3 | 4 | 3 |
| | 1 million to 5 million | 62 | 85 | 87 | 94 | 14.9 | 16.8 | 15.8 | 16.4 | 33 | 46 | 52 | 55 |
| | 500,000 to 1 million | 47 | 53 | 58 | 62 | 11.3 | 10.5 | 10.5 | 10.8 | 67 | 78 | 88 | 94 |
| | 300,000 to 500,000 | 33 | 44 | 43 | 43 | 8.0 | 8.8 | 7.8 | 7.6 | 87 | 116 | 114 | 115 |
| | Fewer than 300,000 | 250 | 298 | 315 | 321 | 60.3 | 59.0 | 56.9 | 56.0 | ... | ... | ... | ... |
| Latin America and the Caribbean | Total urban population | 165 | 315 | 526 | 600 | 100.0 | 100.0 | 100.0 | 100.0 | ... | ... | ... | ... |
| | 10 million or more | — | 42 | 92 | 103 | — | 13.2 | 17.6 | 17.2 | — | 3 | 6 | 6 |
| | 5 million to 10 million | 32 | 16 | 18 | 31 | 19.2 | 4.9 | 3.4 | 5.1 | 4 | 2 | 3 | 5 |
| | 1 million to 5 million | 23 | 69 | 131 | 158 | 13.9 | 21.9 | 24.9 | 26.3 | 13 | 36 | 63 | 77 |
| | 500,000 to 1 million | 14 | 28 | 41 | 41 | 8.3 | 8.8 | 7.8 | 6.8 | 20 | 41 | 57 | 60 |
| | 300,000 to 500,000 | 8 | 17 | 31 | 39 | 5.0 | 5.5 | 5.9 | 6.4 | 21 | 44 | 81 | 101 |
| | Fewer than 300,000 | 88 | 144 | 213 | 229 | 53.6 | 45.8 | 40.5 | 38.1 | ... | ... | ... | ... |
| Northern America | Total urban population | 171 | 211 | 299 | 335 | 100.0 | 100.0 | 100.0 | 100.0 | ... | ... | ... | ... |
| | 10 million or more | 16 | 27 | 31 | 33 | 9.5 | 12.8 | 10.5 | 9.9 | 1 | 2 | 2 | 2 |
| | 5 million to 10 million | 15 | 7 | 50 | 61 | 9.1 | 3.5 | 16.6 | 18.2 | 2 | 1 | 8 | 9 |
| | 1 million to 5 million | 48 | 71 | 87 | 104 | 28.3 | 33.7 | 29.2 | 31.1 | 25 | 33 | 41 | 50 |
| | 500,000 to 1 million | 17 | 22 | 34 | 38 | 10.2 | 10.3 | 11.5 | 11.4 | 25 | 31 | 48 | 55 |
| | 300,000 to 500,000 | 9 | 12 | 24 | 23 | 5.4 | 5.8 | 8.0 | 6.8 | 23 | 32 | 62 | 59 |
| | Fewer than 300,000 | 64 | 72 | 72 | 76 | 37.5 | 34.0 | 24.2 | 22.6 | ... | ... | ... | ... |

TABLE III.2. (*continued*)

| *Geographic region* | *Area of residence and size class of urban settlement (number of inhabitants)* | *Population (millions)* | | | | *Percentage distribution* | | | | *Number of urban agglomerations* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1970 | 1990 | 2018 | 2030 | 1970 | 1990 | 2018 | 2030 | 1970 | 1990 | 2018 | 2030 |
| Oceania | Total urban population | 14 | 19 | 28 | 33 | 100.0 | 100.0 | 100.0 | 100.0 | ... | ... | ... | ... |
| | 10 million or more | — | — | — | — | — | — | — | — | — | — | — | — |
| | 5 million to 10 million | — | — | — | 11 | — | — | — | 34.4 | — | — | — | 2 |
| | 1 million to 5 million | 5 | 10 | 17 | 8 | 39.0 | 54.8 | 59.6 | 25.2 | 2 | 5 | 6 | 4 |
| | 500,000 to 1 million | 3 | 1 | 1 | 2 | 22.2 | 4.6 | 2.4 | 5.5 | 4 | 1 | 1 | 3 |
| | 300,000 to 500,000 | — | 1 | 3 | 2 | — | 4.9 | 10.8 | 7.5 | — | 3 | 8 | 6 |
| | Fewer than 300,000 | 5 | 7 | 8 | 9 | 38.8 | 35.7 | 27.2 | 27.3 | ... | ... | ... | ... |

NOTE: The country classification by income level is based on 2016 GNI per capita from the World Bank.
The change of the population in each size class from one year to another reflects the growth of the population in existing cities of that size class and the incorporation of the population of new cities into that category.

**BOX III.2. Definition of Cities and City population in China**

Unlike many countries where a city typically represents a permanent urban residential settlement, Chinese cities (*shi*) often reflect a political-administrative unit (PAU) covering an area much larger than the urban area, which typically includes an urbanized core surrounded by extensive rural areas (Chan, 2007; Shen, 2005). Only PAUs at the county-level or at a higher administrative level can be granted a city status, which is normally determined the Ministry of Civil Affairs (MOCA) based on some requirements with an approval by the State Council.

Since the establishment of the People's Republic of China in 1949, the definition of cities has undergone four major official revisions in 1955, 1963/64, 1986, and 1993. The 1955 definition of cities was mainly based on population size (100,000 residents or more), the 1963 definition added the proportion of population engaging in non-agriculture as a criterion and the 1986 definition lowered the criterion for population size but added total GNP (Gross national product) as a criterion. The 1993 definition further added population density as a criterion. In the latest two definitions, population and economic indicators are considered together. The criteria were always slightly lower for minority counties, trade centres, locations of nation key projects, military bases, and so on. In 2013, there were 659 cities, of which 4 were province-level cities (Beijing, Chongqing, Shanghai, and Tianjin), 15 were associate-province-level cities, 271 were prefecture-level cities, and 369 were county-level cities.

The definitions of urban areas or urban populations of a city are generally set by the National Bureau of Statistics of China (NBSC). Six updates for the definition of urban population, mainly corresponding to the six censuses (1953, 1964, 1982, 1990, 2000, and 2010), have been made since 1949. In the 1953 census, all residents (i.e., agriculture and non-agriculture) in city districts of a prefecture-level city proper were considered as urban population. In the 1964 census, urban population was defined as non-agricultural population in cities or its subordinate towns, and so it was in the 1982 census. In the 1990 census, two criteria were employed. For the first criterion, the urban population of a city included: (1) all residents of urban districts of a city if the city is a prefecture-level city or above; (2) resident population of street (*jiedao*) committees if the city is a county-level city; (3) population of all neighbourhood committees in subordinate towns of a city. The second criterion excluded those who were registered by rural village committees in (1) to (3) of the first criterion. The 2000 census definition added population density and geographic contiguity into criteria. The 2010 census dropped the population density constraint, yet the contiguity was broken down into the smallest administrative units (i.e., Neighbourhood Committee or Village Committee).

The *hukuo* (or population registration) system excludes *de facto* residents who do not have local *hukou* (mostly rural-to-urban migrants) from the regular local population counts of the city, which complicates the understanding of city population and statistics. Fortunately, the NBSC publishes *de facto* population in the latest three censuses and in the China City Statistical Yearbook, which facilitates city population estimation.

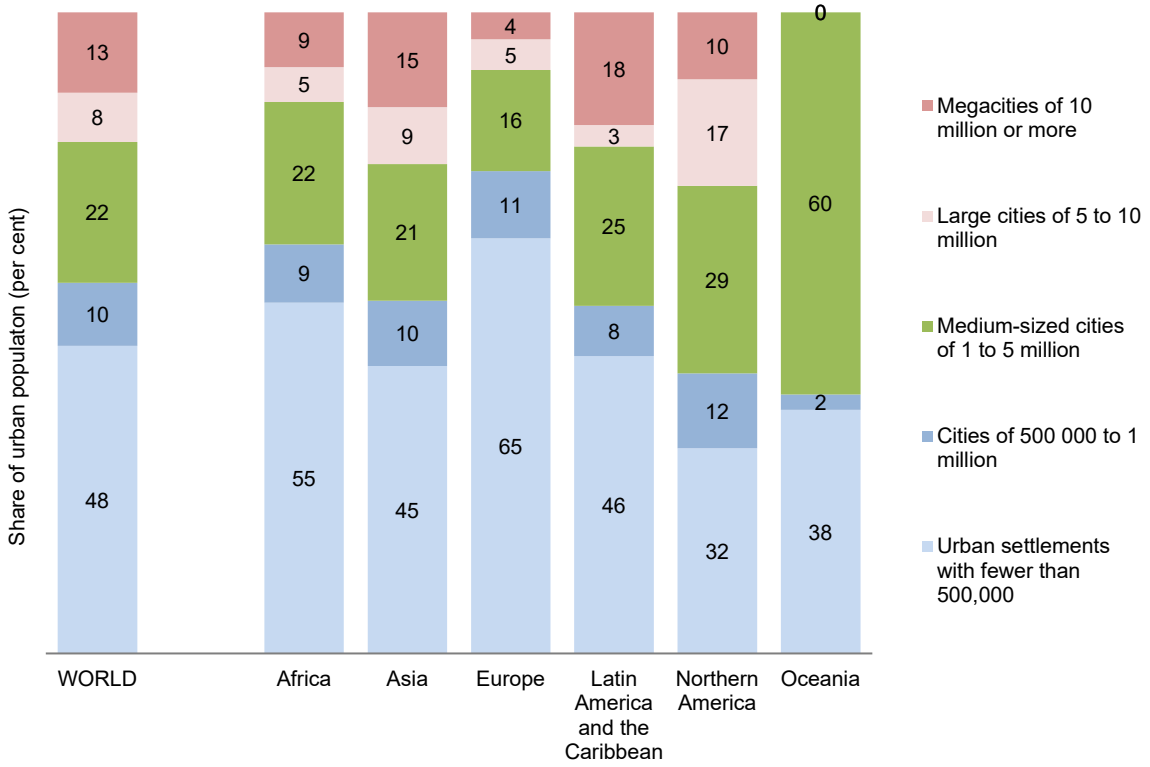
Population estimates of a Chinese city in this revision of the World Urbanization Prospects mainly refer to *de facto* population living in urban areas of all city districts for prefecture-level cities or above, whereas it usually refers to *de facto* population living in city built-up urban areas and urban areas that are contiguous to built-up areas for a county-level city. Population estimates of an agglomeration may include some surrounding areas that are not necessarily contiguous to each other. Please refer to source of each city for details.

References: Chan, K.W. (2007) and Shen, J. (2005).

*The urban hierarchy by geographic region, income group and development group*

As shown in Chapter I, geographic regions of the world differ in their level of urbanization significantly. Looking at their urban populations only, geographic regions differ in the distribution of their populations across the urban hierarchy as well, noticeably in the degree of urban concentration, defined as the share of the population living in the largest cities. To account for the differences in terms of patterns of urban concentration across geographic regions, we compare in this section the percentage of the urban population living in different size class or classes, along with the number of cities in each class (figure III.3 for the year 2018 and table III.2 for selected years; also see Map III.1 for a global perspective on the distribution of urban settlements).

**Figure III.3. Urban population of the world and geographic regions and number of cities, by size class of urban settlement, 2018**




Today, Africa is the least urbanized geographic region in the world (43 per cent); however, because of the size of its total population, its urban population is the third largest in the world. Almost half of the urban population is concentrated in the "bottom" of the urban hierarchy, that is in urban settlements with fewer than 300,000 inhabitants. Going up the ladder, eighty-seven cities with 300,000 to 500,000 inhabitants add another 6 per cent of the urban dwellers. In the opposite end, 3 megacities and 5 large cities concentrate together a small proportion of the urban population (14 per cent).

Asia is 50 per cent urban and is home to the largest urban population of the world. Compared to Africa, Asia presents a different urban concentration profile. Whereas close to half of its urban dwellers live in urban settlements with fewer than 500,000 inhabitants (45 per cent), the proportion living in the opposite end of the urban spectrum is also relatively high: close to one in four lives in megacities or large cities with 5 to 10 million people, including eight of the ten largest cities of the world. In between, more than 580 cities

with 500,000 to 5 million inhabitants host roughly the remaining 30 per cent. This urban pattern makes Asia one of the regions with a quite evenly distributed urban population, as compared to the other geographic regions of the world.

Europe is highly urbanized and host the second largest urban population of the world. Among all geographic regions, Europe stands out for its low urban concentration: almost two thirds of its urban dwellers live in urban settlements and cities with fewer than 500,000 inhabitants. While in 1990 Europe did not have any megacity and had only 3 large cities, today two megacities and 4 large cities are home to almost 50 million people, representing 9 per cent of the urban population.

Latin America and the Caribbean, with the fourth largest urban population worldwide, is one of the highest urbanized geographic regions. Its urban concentration pattern is comparable to Asia's, as it exhibits a relatively even distribution across size class. Also, Latin America and the Caribbean distinguish itself for the relative importance of its megacities, as a total of 6 megacities host 18 per cent of the urban population, which is the highest proportion among all geographic regions. Two of the then biggest cities worldwide are in Latin America.

Northern America is the region with the highest percentage urban and the second-to-last urban population size among all geographic regions. Its urban population is comparatively leaned towards the upper classes of the hierarchy, which makes the geographic region an example of high urban concentration. At the top, ten mega and large cities host 27 per cent of the urban population, while another 29 per cent lives in 41 medium-sized cities. At the bottom of the hierarchy, less than one forth resides in urban settlements with fewer than 300,000 inhabitants.

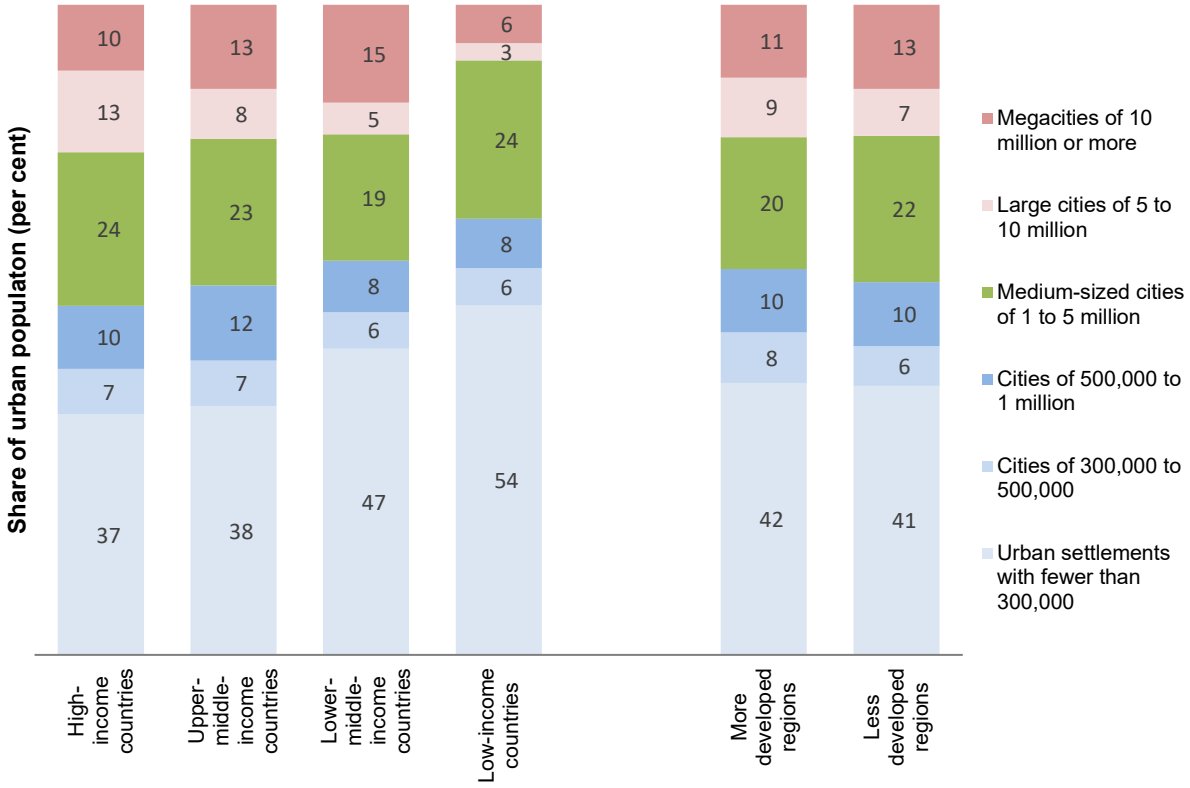
Oceania, with the smallest urban population, has a peculiar distribution. Most of the urban population resides in 6 medium-sized cities (60 per cent). The remaining 40 per cent is skewed towards the smallest urban settlements.

The distribution of the urban population by income group of countries reveals some association between urban concentration and income levels, which may not be clearly revealed when looking at differences across geographic regions (figure III.4). However, as noted in Chapter I, the mechanisms involved in both urbanization and economic growth are complex, so that there is no clear evidence about the strength or the direction of the relationship between both processes. Likewise, the association between urban concentration and the income groups of countries can be driven by multiple factors, some of which are intrinsic to the multiple ways cities grow (see Box I.2 in Chapter I).

Table III.3 shows the distributions of urban dwellers by size class of urban settlements for countries classified by income group and by development group. The number of cities found in each category is also depicted. The classification of countries by income level is based on the Gross National Income per capita in 2016 and has been maintained unchanged over time. In 1970, today's high-income countries hosted the only three existing megacities: Tokyo, New York-Newark, and Osaka (Kinki Major Metropolitan Area or M.M.A.). At the other end of the income groupings, within low-income countries, the largest cities were Kinshasa (Democratic Republic of the Congo), considered a medium-sized city, and three cities with 500,000 to 1 million inhabitants, namely, P'yongyang (Democratic People's Republic of Korea), Addis Ababa (Ethiopia), and Dakar (Senegal). Today, most megacities are located in middle-income countries. In 2018, upper-middle-income countries had 15 megacities adding up to 228 million inhabitants, and 20 large cities with 135 million inhabitants. Lower-middle-income countries had 12 megacities (189 million inhabitants) and 9 large cities (62 million inhabitants). Compared to either category of middle-income countries, the urban population in high-income countries is skewed towards the intermediate size classes, while in low-income it is concentrated in the bottom of the urban hierarchy, or the category of urban

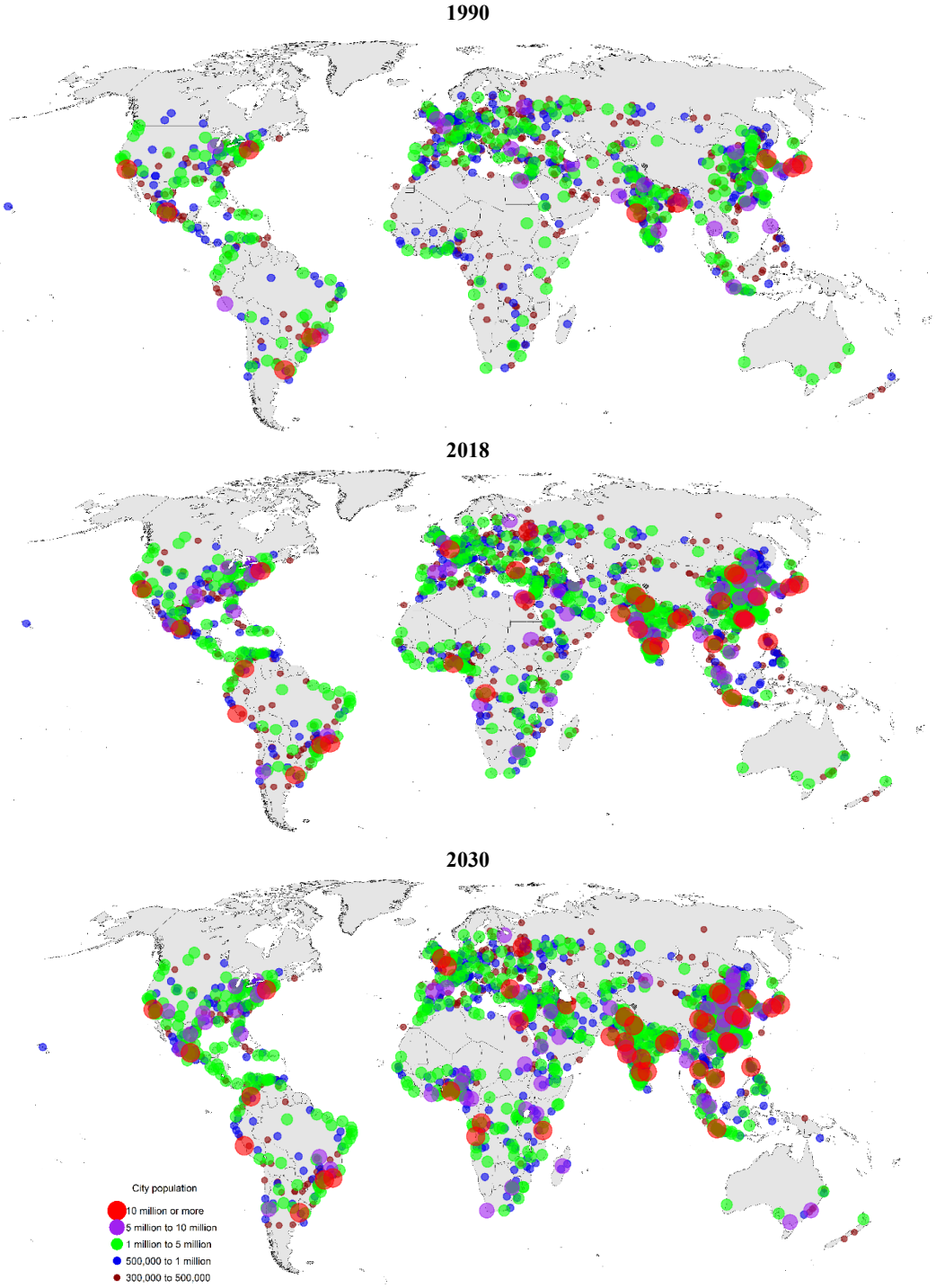
settlements with fewer than 300,000 inhabitants (figure III.4). In the coming decades, new megacities are expected to emerge worldwide, so that compared to today, ten more megacities will host 752 million people in 2030. Most of the new megacities will be located in middle-income countries. In the low-income countries, on the other hand, Dar es Salaam (United Republic of Tanzania) is projected to reach the 10 million mark by 2029.

**Figure III.4. Urban population of the income groups and development groups, by size class of urban settlement, 2018**




NOTE: The country classification by income level is based on 2016 GNI per capita from the World Bank.

**Map III.1. Cities by size class of urban settlement, 1990, 2018 and 2030**




* For cities with 300,000 inhabitants or more in 2018.

The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. Final boundary between the Republic of Sudan the Republic of South Sudan has not yet been determined. A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

TABLE III.3. POPULATION AND NUMBER OF URBAN AGGLOMERATIONS OF THE INCOME GROUPS AND DEVELOPMENT GROUPS BY SIZE CLASS OF URBAN SETTLEMENT, 1970, 1990, 2018 AND 2030

| *Income/ development group* | *Area of residence and size class of urban settlement (number of inhabitants)* | *Population (millions)* | | | | *Percentage* | | | | *Number of cities* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *1970* | *1990* | *2018* | *2030* | *1970* | *1990* | *2018* | *2030* | *1970* | *1990* | *2018* | *2030* |
| High- income countries | Total urban population | 585 | 744 | 975 | 1 049 | 100.0 | 100.0 | 100.0 | 100.0 | ... | ... | ... | ... |
| | 10 million or more | 55 | 88 | 99 | 120 | 9.4 | 11.9 | 10.1 | 11.5 | 3 | 5 | 5 | 7 |
| | 5 million to 10 million | 43 | 43 | 123 | 135 | 7.4 | 5.8 | 12.6 | 12.9 | 6 | 6 | 18 | 20 |
| | 1 million to 5 million | 127 | 180 | 230 | 249 | 21.8 | 24.2 | 23.6 | 23.7 | 65 | 85 | 110 | 121 |
| | 500,000 to 1 million | 55 | 69 | 95 | 102 | 9.4 | 9.3 | 9.7 | 9.7 | 80 | 100 | 137 | 147 |
| | 300,000 to 500,000 | 35 | 46 | 68 | 71 | 5.9 | 6.2 | 6.9 | 6.8 | 91 | 120 | 177 | 185 |
| | Fewer than 300,000 | 270 | 318 | 361 | 372 | 46.2 | 42.7 | 37.0 | 35.4 | ... | ... | ... | ... |
| Upper- middle-income countries | Total urban population | 466 | 892 | 1 759 | 2 069 | 100.0 | 100.0 | 100.0 | 100.0 | ... | ... | ... | ... |
| | 10 million or more | — | 42 | 228 | 301 | — | 4.7 | 12.9 | 14.5 | — | 3 | 15 | 18 |
| | 5 million to 10 million | 45 | 59 | 135 | 201 | 9.6 | 6.6 | 7.7 | 9.7 | 6 | 8 | 20 | 29 |
| | 1 million to 5 million | 73 | 168 | 397 | 510 | 15.6 | 18.9 | 22.6 | 24.6 | 39 | 92 | 205 | 272 |
| | 500,000 to 1 million | 45 | 74 | 203 | 226 | 9.6 | 8.3 | 11.5 | 10.9 | 64 | 109 | 292 | 323 |
| | 300,000 to 500,000 | 29 | 70 | 124 | 133 | 6.2 | 7.9 | 7.0 | 6.4 | 75 | 184 | 320 | 343 |
| | Fewer than 300,000 | 275 | 479 | 673 | 697 | 59.0 | 53.7 | 38.3 | 33.7 | ... | ... | ... | ... |
| Lower- middle-income countries | Total urban population | 272 | 579 | 1 259 | 1 688 | 100.0 | 100.0 | 100.0 | 100.0 | ... | ... | ... | ... |
| | 10 million or more | — | 23 | 189 | 298 | — | 4.0 | 15.0 | 17.7 | — | 2 | 12 | 16 |
| | 5 million to 10 million | 19 | 55 | 62 | 87 | 7.1 | 9.4 | 4.9 | 5.2 | 3 | 7 | 9 | 13 |
| | 1 million to 5 million | 44 | 102 | 244 | 344 | 16.0 | 17.6 | 19.4 | 20.4 | 22 | 56 | 125 | 167 |
| | 500,000 to 1 million | 29 | 54 | 100 | 136 | 10.6 | 9.4 | 7.9 | 8.1 | 43 | 77 | 145 | 197 |
| | 300,000 to 500,000 | 19 | 38 | 71 | 92 | 6.9 | 6.6 | 5.6 | 5.5 | 48 | 100 | 184 | 238 |
| | Fewer than 300,000 | 161 | 307 | 593 | 729 | 59.3 | 53.0 | 47.1 | 43.2 | ... | ... | ... | ... |
| Low- income countries | Total urban population | 31 | 73 | 224 | 359 | 100.0 | 100.0 | 100.0 | 100.0 | ... | ... | ... | ... |
| | 10 million or more | — | — | 13 | 33 | — | — | 5.9 | 9.1 | — | — | 1 | 2 |
| | 5 million to 10 million | — | — | 6 | 24 | — | — | 2.7 | 6.6 | — | — | 1 | 4 |
| | 1 million to 5 million | 1 | 17 | 55 | 80 | 3.5 | 22.7 | 24.4 | 22.3 | 1 | 10 | 27 | 37 |
| | 500,000 to 1 million | 2 | 10 | 17 | 29 | 7.6 | 13.7 | 7.6 | 8.2 | 3 | 15 | 24 | 43 |
| | 300,000 to 500,000 | 4 | 5 | 13 | 23 | 13.8 | 6.3 | 5.7 | 6.4 | 11 | 12 | 33 | 61 |
| | Fewer than 300,000 | 23 | 42 | 120 | 170 | 75.1 | 57.3 | 53.8 | 47.4 | ... | ... | ... | ... |
| More developed regions | Total urban population | 674 | 830 | 994 | 1 050 | 100.0 | 100.0 | 100.0 | 100.0 | ... | ... | ... | ... |
| | 10 million or more | 55 | 78 | 111 | 123 | 8.1 | 9.4 | 11.2 | 11.7 | 3 | 4 | 6 | 7 |
| | 5 million to 10 million | 45 | 46 | 91 | 105 | 6.7 | 5.6 | 9.2 | 10.0 | 6 | 6 | 14 | 16 |
| | 1 million to 5 million | 124 | 174 | 201 | 216 | 18.4 | 20.9 | 20.3 | 20.6 | 64 | 88 | 103 | 113 |
| | 500,000 to 1 million | 68 | 77 | 97 | 105 | 10.1 | 9.3 | 9.8 | 10.0 | 97 | 113 | 143 | 156 |
| | 300,000 to 500,000 | 44 | 60 | 77 | 76 | 6.5 | 7.2 | 7.8 | 7.2 | 114 | 158 | 202 | 198 |
| | Fewer than 300,000 | 339 | 395 | 416 | 425 | 50.3 | 47.6 | 41.8 | 40.5 | ... | ... | ... | ... |
| Less developed regions | Total urban population | 680 | 1 460 | 3 226 | 4 118 | 100.0 | 100.0 | 100.0 | 100.0 | ... | ... | ... | ... |
| | 10 million or more | — | 75 | 418 | 629 | — | 5.2 | 12.9 | 15.3 | — | 6 | 27 | 36 |
| | 5 million to 10 million | 62 | 110 | 234 | 342 | 9.2 | 7.5 | 7.2 | 8.3 | 9 | 15 | 34 | 50 |
| | 1 million to 5 million | 121 | 293 | 725 | 966 | 17.7 | 20.1 | 22.5 | 23.5 | 63 | 155 | 364 | 484 |
| | 500,000 to 1 million | 63 | 130 | 317 | 389 | 9.2 | 8.9 | 9.8 | 9.4 | 93 | 188 | 455 | 554 |
| | 300,000 to 500,000 | 43 | 99 | 197 | 244 | 6.3 | 6.8 | 6.1 | 5.9 | 111 | 258 | 512 | 629 |
| | Fewer than 300,000 | 391 | 752 | 1 335 | 1 547 | 57.6 | 51.5 | 41.4 | 37.6 | ... | ... | ... | ... |

TABLE III.3. (*continued*)

| *Income/ development group* | *Area of residence and size class of urban settlement (number of inhabitants)* | *Population (millions)* | | | | *Percentage* | | | | *Number of cities* | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *1970* | *1990* | *2018* | *2030* | *1970* | *1990* | *2018* | *2030* | *1970* | *1990* | *2018* | *2030* |
| Least developed regions | Total urban population | 40 | 110 | 344 | 539 | 100.0 | 100.0 | 100.0 | 100.0 | … | … | … | … |
| | 10 million or more | — | — | 33 | 73 | — | — | 9.5 | 13.5 | — | — | 2 | 4 |
| | 5 million to 10 million | — | 7 | 25 | 45 | — | 6.0 | 7.1 | 8.3 | — | 1 | 4 | 7 |
| | 1 million to 5 million | 4 | 22 | 65 | 105 | 11.1 | 19.9 | 18.8 | 19.4 | 3 | 12 | 31 | 53 |
| | 500,000 to 1 million | 4 | 12 | 29 | 42 | 9.1 | 10.8 | 8.4 | 7.7 | 5 | 17 | 41 | 60 |
| | 300,000 to 500,000 | 4 | 6 | 18 | 28 | 10.6 | 5.8 | 5.1 | 5.2 | 11 | 17 | 44 | 73 |
| | Fewer than 300,000 | 27 | 63 | 176 | 247 | 69.1 | 57.5 | 51.1 | 45.8 | … | … | … | … |

NOTE: The country classification by income level is based on 2016 GNI per capita from the World Bank.
The change of the population in each size class from one year to another reflects the growth of the population in existing cities of that size class and the incorporation of the population of new cities into that category.

In sum, a positive association between income level and urban concentration (as described by the six size classes of urban settlements used in this report) is observed, although the association is more apparent at the bottom of the urban hierarchy. In other words, lower income levels are associated with a relatively large population living in smaller urban settlements. This fact may simply indicate that lower income countries are at an earlier stage of their urbanization processes, given the positive association between the overall level of urbanization and income, discussed earlier. On the other hand, as noted earlier in this report, the mechanisms involved in defining the pace of urbanization, and consequently the shift of population towards larger size classes in the urban hierarchy, are complex and multidirectional. Accordingly, the differences between income groups become less clear as we move up in the urban hierarchy to larger size classes. Still, taken together, relatively more people live in large cities and megacities in high-income countries compared to low-income countries. For example, in high-income countries, more than 20 per cent of the urban population lives in large cities and megacities, while in low-income countries only 9 per cent does (figure III.4 and table III.3). By 2030, lower-middle-income countries are expected to have 4 more megacities than today, hosting a population 60 per cent larger (298 million in 2030 compared to 189 million in 2018). In low-income countries, the number of residents in megacities is expected to be 2.5 times larger, or 33 million in 2030 compared to 13 million today. However, a relatively high percentage of the urban population (47 per cent) is expected to continue to reside in urban settlements with fewer than 300,000 inhabitants. The number of cities with 300,000 to 500,000 inhabitant will increase from 33 in 2018 to 61 in 2030.

Unlike with income groups, figure III.4 suggests that the association between urban concentration and development groups are not apparent in 2018. However, because of the large differences in population size (the urban population in less developed regions is more than 3 times bigger than in more developed regions), the population by size class and the number of cities differ greatly between groups (table III.3).

In 1970 there were no megacities in the less developed regions, but by 2018 less developed regions hosted the majority of the world's megacities, including Dhaka and Kinshasa in least developed countries (Bangladesh and Democratic Republic of the Congo). By 2030, the less developed regions are projected to have 9 new megacities, including two in least developed countries, namely, Luanda (Angola) and Dar es Salaam (United Republic of Tanzania). In the more developed regions, London (United Kingdom) is expected to reach the 10 million mark by 2027. Next to megacities, large cities with 5 to 10 million inhabitants account for a small but growing number of urban agglomerations. In 2018, the population of large cities was almost 4 times larger in less developed than in more developed regions and by 2030 it is expected to be 5 time larger. Accordingly, the number of cities will increase substantially in the less

developed regions, from 34 to 50 between 2018 and 2030. In the least developed countries, the population in large cities is projected to more than double in the same period, from 33 million to 73 million.

At the bottom end of the urban hierarchy, cities with 300,000 to 500,000 inhabitants account for the smallest share of world's urban dwellers although they are more numerous than any other category of cities with more than half a million residents. The population in these smaller cities is 2.5 times larger in less developed regions than in more developed ones in 2018, and this difference is expected to increase as population growth will be faster in the former than in the latter. By 2030, the less developed regions will have 629 cities in that size range as opposed to 198 in the more developed regions. Urban settlements with fewer than 300,000 inhabitants have the largest share of global urban population, with similar proportions in both development groups. While this share is projected to shrink slightly over time, by 2030, these small towns and cities will still be home to 40 per cent (425 million) and 38 per cent (1.5 billion) of urban dwellers in the more developed regions and less developed regions respectively.

*City primacy*

The territorial spread of cities of different sizes throughout the national space constitutes, in simple terms, a country's urban system. A country's urban system can be linked to the organization of the government at the national, regional, and local levels (Kim and Law 2012). In turn, the urban system may determine the need for specific urban development policies, consistent with the size, growth and function of each city. In some countries, the largest city is home to a relatively high proportion of the urban population, which is known as the "primate city". The interplay of forces towards population agglomeration and distribution makes the empirical relationships between a country's existing urban system and its future development multidimensional and non-linear. While there is evidence to support a positive relationship between concentration of people and economic efficiency, research has also found that city primacy can create an unbalance in the urban hierarchy and bias development processes (Short and Pinet-Peralta 2009, UN-Habitat, 2016, 2013, 2008). In that regard, the New Urban Agenda highlights the need for balanced and polycentric territorial development policies and plans, including sustainable urban and territorial planning for city-regions and metropolitan areas (UN Habitat, 2017).

The conditions under which primacy emerges can vary greatly and evolve with country size, population density, and the stage in the urbanization process, among other factors (OECD, 2012, Short and Pinet-Peralta, 2009). In small countries, it is easy for virtually all of the urban population to be concentrated in a single city. In those cases, the primate city may account for close to 100 per cent of the urban population. Even in larger countries, primate cities sometimes account for more than half of the total urban population. Changes in primacy can be affected by all of the factors affecting urbanization more generally, including reclassification and migration. In cities located in countries that have experienced civil conflicts, migration flows to and from the main urban centres during and after conflicts can occur and affect the relative size of urban agglomerations.

Unless otherwise stated, in this section, a city will be considered to be the primate city of a country when it accounts for at least 40 per cent of the urban population in a particular year and is included in *World Urbanization Prospects*, i.e. having a population of at least 300,000 in 2018. Its degree of primacy will be measured by the proportion of the country's urban population living in it. For example, a primate city with a degree of primacy of .7 would be the largest city of the country and it would account for 70 per cent of the total urban population.

Among all urban settlements with 300,000 inhabitants or more in 2018, three represent special cases of city primacy: Hong Kong, Special Administrative Area of China (SAR), with 7.4 million inhabitants in 2018; Macao, Special Administrative Area of China (SAR), with 632,000 inhabitants in 2018; and

Singapore, a city-state with 5.8 million inhabitants in 2018. Over the whole period under study, these special cases account for the total urban population of the respective areas; therefore, the degree of primacy reaches a maximum 1. Moreover, in 2018, these urban agglomerations equate to their respective areas, as no rural population is estimated. In addition to the three urban agglomerations with a maximum degree of primacy, three capital cities concentrate a high proportion of the urban populations of their countries, namely, Asunción (Paraguay), Djibouti (Djibouti), Kuwait City (Kuwait), all of whom concentrate over 70 per cent of their urban populations in 2018.

Overall, 41 urban agglomerations in 2018 contained more than 40 per cent of the urban populations of their respective countries worldwide. In other words, in 41 countries the urban systems allows for a high degree of city primacy, as defined above. Fourteen of these countries are in Asia, 14 in Africa, 8 in Latin America and the Caribbean, and 5 in Europe. The sizes of primate cities vary greatly, from around 376,000 inhabitants in Bata (Equatorial Guinea), to 20 million inhabitants in Cairo. However, most of these primate cites are medium-sized or large cities, with at least 1 million inhabitants.

Table III.4 provides a list of all countries in which primate cities accounted for at least 40 per cent of their urban population and had 1 million inhabitants or more in 2018. Primate cities accounting for large proportions of the urban population in their country tend to belong to small but highly urbanized countries, such as Kuwait and Mongolia, and to a lesser extent, Panama and Congo. Nevertheless, there is no strong correlation between the degree of primacy and the size or proportion of the urban population of the respective country. As urbanization moves forward, urban systems may become more concentrated or on the contrary, more diversified. By 2030, most of the cities in table III.4, regardless of their degree of primacy, are expected to maintain or slightly increase their degree of primacy. For example, Kuwait City is expected to increase its primacy from 0.71 to 0.74, and Beirut from 0.44 to 0.48.

Urban systems characterized by the primacy of one urban agglomeration over the rest is not a generalized phenomenon. In many counties, there tends to be a greater diversification of the urban system, with the result that the preponderance of one city in a country's urban system is eroded by the growth of medium-sized and smaller urban centres. For example, in most of the largest countries of the world, the largest city accounted for a very small proportion of their respective urban populations in 2018, which may suggest that cities and urban settlements make up more diversified urban systems. Examples of such configurations are Brazil, China, France, Germany, India, Indonesia, Italy, Russian Federation, United Kingdom, and United States of America. In China and India for example, less than 20 per cent of the urban population lives in megacities (6 and 5 megacities respectively), while more than half lives in cities with less than 1 million (54 and 55 per cent respectively). The United States of America has only 9 cities with more than 5 million inhabitants, and the Russian Federation has only 15 agglomeration with more than one million people, far fewer than in any other size category.

TABLE III.4. POPULATION OF URBAN AGGLOMERATIONS WITH THE HIGHEST DEGREES OF PRIMACY, URBAN POPULATION AND PERCENTAGE URBAN BY COUNTRIES, 2018

| *Rank* | *Urban agglomeration* | *Country* | *Population (thousands)* | *Urban population in the country (thousands)* | *Percentage urban in the country* |
|---|---|---|---|---|---|
| *Cities with a degree of primacy greater than 0.6* | | | | | |
| 1 | Hong Kong (*) | China, Hong Kong SAR | 7 429 | 7 429 | 100.0 |
| 2 | Singapore (*) | Singapore | 5 792 | 5 792 | 100.0 |
| 3 | Asunción | Paraguay | 3 222 | 4 247 | 61.3 |
| 4 | San Juan | Puerto Rico | 2 454 | 3 424 | 93.6 |
| 5 | Ulaanbaatar | Mongolia | 1 520 | 2 137 | 68.4 |
| 6 | Al Kuwayt (Kuwait City) | Kuwait | 2 989 | 4 197 | 100.0 |
| 7 | Ciudad de Panamá (Panama City) | Panama | 1 783 | 2 818 | 67.4 |
| 8 | Brazzaville | Congo | 2 230 | 3 613 | 66.5 |
| *Cities with a degree of primacy 0.5 - 0.6* | | | | | |
| 9 | Yerevan | Armenia | 1 080 | 1 853 | 63.1 |
| 10 | Monrovia | Liberia | 1 418 | 2 483 | 50.7 |
| 11 | Montevideo | Uruguay | 1 737 | 3 308 | 95.2 |
| 12 | Lomé | Togo | 1 746 | 3 332 | 41.2 |
| 13 | Phnum Pénh (Phnom Penh) | Cambodia | 1 952 | 3 800 | 23.0 |
| 14 | Tel Aviv-Yafo (Tel Aviv-Jaffa) | Israel | 4 011 | 7 812 | 92.3 |
| *Cities with a degree of primacy 0.4 – 0.5* | | | | | |
| 15 | Nouakchott | Mauritania | 1 205 | 2 437 | 52.8 |
| 16 | Kigali | Rwanda | 1 058 | 2 152 | 17.1 |
| 17 | Tbilisi | Georgia | 1 077 | 2 291 | 58.2 |
| 18 | Al-Qahirah (Cairo) | Egypt | 20 076 | 42 438 | 42.7 |
| 19 | Bayrut (Beirut) | Lebanon | 2 385 | 5 398 | 88.4 |
| 20 | Lisboa (Lisbon) | Portugal | 2 927 | 6 711 | 64.7 |
| 21 | Ouagadougou | Burkina Faso | 2 531 | 5 799 | 28.7 |
| 22 | Kabul | Afghanistan | 4 012 | 9 273 | 25.3 |
| 23 | Port-au-Prince | Haiti | 2 637 | 6 143 | 54.3 |
| 24 | Santiago | Chile | 6 680 | 15 934 | 87.5 |
| 25 | Baku | Azerbaijan | 2 286 | 5 526 | 55.3 |
| 26 | Lima | Peru | 10 391 | 25 360 | 77.7 |
| 27 | Dublin | Ireland | 1 201 | 3 035 | 62.9 |

NOTE: For urban agglomerations with 1,000,000 inhabitants or more in 2018. Urban agglomerations are ordered according to the degree of primacy in 2018. (*) City primacy is 1. These agglomerations account for the total urban population of the respective areas and no rural population is estimated in 2018.

## B. Patterns of city growth over time

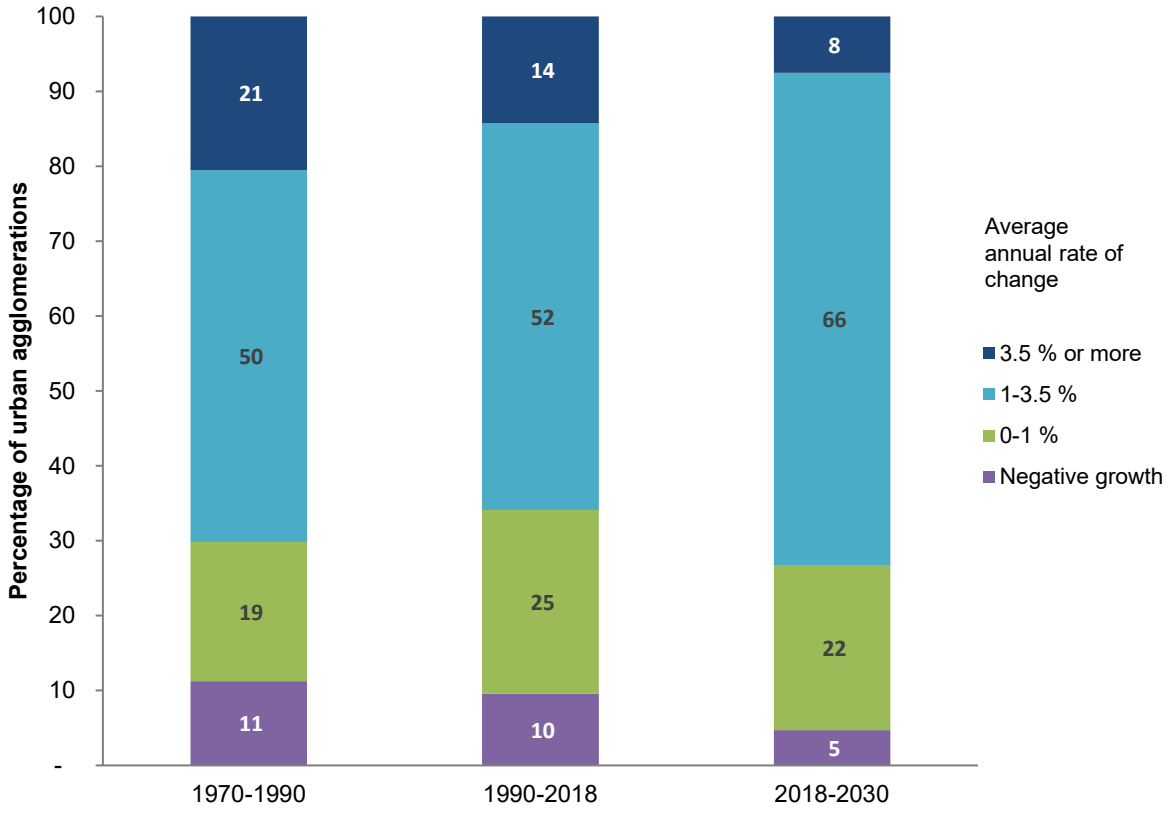
Population growth is one of several interacting forces defining the unique morphology of a city. Population growth can be both a determinant and a result of the evolution of such "urban form" over time. A short list of contributing factors might include city location and surrounding topography (such as coastline, mountain range, or river), economies of scale brought by agglomeration, population make-up and cultural preferences, "pull" factors for migrants, urban planning (infrastructure, transportation, etc.), and even the state's institutional history with regard to the organization of its system of cities (Besussi and others, 2010; Kim and Law, 2012; Batty 2008).

### *Differences in city growth*

Chapter II has shown that as the levels of urbanization increased, urbanization rates have slowed down. Consistent with this trend, and regardless of the initial size of their population, growth rates of most cities have fallen from 1970-1990 to 1990-2018 and city growth is expected to continue slowing down through 2030. For example, population growth appears to deaccelerate over time in most cities, regardless of their initial size. When comparing the pace of growth between 1970-1990 and 1990-2018 in two broad size classes, cities with 300,000 to 1 million inhabitants and cities with 1 million inhabitants or more in 1970, rates fell down in 67 and 64 per cent of the cities, respectively (data not shown). Similarly, falling rates between 1990-2018 and the projection period 2018-2030 are expected in 73 per cent of the larger cities, but in only 24 per cent of the smaller ones, suggesting that smaller cities will absorb most of the future urban growth.

Some cities have grown quite precipitously. From 1970 to 1990, 115 cities had rates of 3.5 per cent or more per year, representing 21 per cent of a total of 560 cities with 300,000 inhabitants or more in 1970 (figure III.5). Almost half of them were cities with 300,000 to 500,000 inhabitants, suggesting that the fastest growing cities at the global level are relatively small in size. No large cities with 5 to 10 million inhabitants or megacities were among these fast-growing cities. During 1990-2018, the percentage of cities growing at such high rates decreased to 14 per cent, although the total number of cities with 300,000 inhabitants of more had increased to 991 in 1990. Smaller cities were still predominant in the group, joined by more medium-sized and some large cities. In the future, even fewer cities are expected to grow at such high rates. In 2018-2030, only 8 per cent of the cities with 300,000 inhabitants or more in 2018 will grow at 3.5 per cent or more per year. Among them are two African megacities: Kinshasa and Lagos.

**Figure III.5. Urban agglomerations by average annual rate of change of the population, 1970-1990, 1990-2018 and 2018-2030**




NOTE: For urban agglomerations with 300,000 inhabitants or more in 1970, 1990 and 2018 (560 and 991 and 1,860, respectively).

Generally, rapidly growing cities do not maintain high pace of growth for a long time. The growth rate of the vast majority of the fastest growing cities in the world during 1970-1990 had already slowed down during the 1990-2018 period, and are expected to continue to do so over the projected period until 2030 (table III.5). For example, Shenzhen—the only megacity in this group—witnessed a 49 per cent reduction in its growth rate, from 18 per cent per year in the first two decades, to 9 per cent in the following period, and it is expected to slow down furthermore during the projection period to 2030. Similarly, the pace of growth of most cities in this group are expected to have significant declines until 2030, including many Chinese cities with more than 50 per cent decline in their 2018-2030 growth rates.

Differences in city growth are also observed across geographic regions and over time for cities with 300,000 inhabitants or more. Globally, from 1970 to 1990, cities with 300,000 to 500,000 inhabitants grew at a rate of 2.3 per cent per year; these smaller cities grew the fastest in Africa and Asia. In Africa, however, cities with 500,000 to 1 million inhabitants grew the fastest, at an average annual rate above 4 per cent. In Latin America and the Caribbean, cities in this size class were growing at a similar rate, faster than any other size class. In contrast, cities of all size classes in Europe and Northern America grew slower, with maximum annual rates of about 1 per cent, during the same period. From 1990 to 2018, city growth slowed down at the global level. Cities with 500,000 to 1 million inhabitants in Africa grew the fastest, while in other geographic regions population growth has slowed down significantly in all city size classes. Growth rates dropped significantly in Latin America and the Caribbean and in Europe. In this period, close to 40 cities grew at an average annual growth rate of 5 per cent or more; most of them were cities with fewer than

1 million inhabitants. Of the ten fastest growing cities over that period, with growth rates ranging from 6.3 to 9.3 per cent per year, seven are located in China (Shenzhen, Dongguan, Zhongshan, Foshan, Huai'an, Suzhou-Jiangsu, and Shantou), one in Nigeria (Abuja), one in India (Malappuram) and one in the United Arab Emirates (Dubai). All but two (Foshan and Suzhou-Jiangsu) had fewer than 1 million inhabitants in 1990.

Future city growth is expected to slow down further through 2030. However, in Africa city growth is likely to accelerate, with average rates higher than 3 per cent, regardless of the city size. All ten fastest growing cities over that period, with growth rates ranging from 5.2 per cent to 5.9 per cent per year, are located in Africa (data not shown). In contrast, the slowest growth is expected to occur in European cities with less than 500,000 inhabitants today.

The proportion of cities with low growth rates (ranging between 0 and 1 per cent) has also been relatively stable over time, having risen only slightly from 19 per cent per year over 1970-1990 to 25 per cent per year over 1990-2018 (see figure III.5, above). Most of the cities with low growth rates between 1990 and 2018 are in the more developed regions (Europe and Northern America) and Eastern Asia; only four cities in Africa had these low grow rates. Some cities have experienced population decline in recent years. Most of these are located in the low-fertility countries of Asia and Europe where overall population sizes are stagnant or declining. Economic contraction and natural disasters have contributed to population losses in some cities as well. In other cases, population declines are not clearly associated with crisis.

The percentage of cities estimated to have lost population has remained steady during 1970-1990 and 1990-2018, at around 10 per cent (figure III.5, above). During 1970-1990, 63 cities with 300,000 inhabitants or more in 1970 experienced negative growth, most of which were in the United Kingdom, Germany and the United States of America. During the more recent period of 1990-2018, 95 cities with 300,000 inhabitants or more in 1990 experienced population decline, mainly located in the Russian Federation, Ukraine and other European countries.

More recently, since 2000, most of the cities experiencing population decline were located in low-fertility countries of Asia and Europe with stagnating or declining populations. A few cities in Japan and the Republic of Korea (for example, Nagasaki and Busan) have experienced population decline between 2000 and 2018. Several cities in European countries such as Poland, Romania, the Russian Federation and Ukraine have lost population since 2000 as well. Shrinking populations in Central and Eastern Europe has resulted from challenging adaptation processes after radical shifts in economic organization and performance, and changes in political regimes or economic policy. Shrinking cities, include several capital cities around the world, such as Bucharest (Romania), Colombo (Sri Lanka), La Habana (Cuba), Riga (Latvia), and Yerevan (Armenia). In addition to low fertility, emigration has also contributed to smaller population sizes in some of these cities.

Cities experiencing both demographic and economic declines around the world face important challenges for planning their urban policies, as they need to redefine their economic strategies while developing adaptive policy instruments to address the realities of shrinkage. Today, 94 cities have declining populations, i.e. they lost population between 2015 and 2020. These cities are home to nearly 95 million people in 2018, and most of them are expected to continue shrinking in 2020-2030, so that by 2030 they would have lost 2.1 million since 2018. Globally, fewer cities (5 per cent) are projected to see their populations decline from today to 2030, as compared to the last 2 decades.

TABLE III.5. POPULATION SIZE AND AVERAGE ANNUAL RATE OF CHANGE OF THE FASTEST-GROWING URBAN AGGLOMERATIONS IN 1990-2018 AND 2018-2030

| | | | *Population (thousands)* | | | *Average annual rate of change (per cent)* | |
|---|---|---|---|---|---|---|---|
| *Rank* | *Country* | *Urban agglomeration* | *1990* | *2018* | *2030* | *1990-2018* | *2018-2030* |
| 1 | China | Shenzhen | 875 | 11 908 | 14 537 | 9.3 | 1.7 |
| 2 | China | Dongguan | 552 | 7 360 | 8 279 | 9.2 | 1.0 |
| 3 | Nigeria | Abuja | 330 | 2 919 | 5 119 | 7.8 | 4.7 |
| 4 | India | Malappuram | 359 | 2 950 | 4 976 | 7.5 | 4.4 |
| 5 | China | Zhongshan | 393 | 2 872 | 3 302 | 7.1 | 1.2 |
| 6 | China | Foshan | 1 008 | 7 196 | 8 350 | 7.0 | 1.2 |
| 7 | China | Huai'an | 384 | 2 420 | 3 430 | 6.6 | 2.9 |
| 8 | China | Suzhou, Jiangsu | 1 067 | 6 339 | 9 389 | 6.4 | 3.3 |
| 9 | United Arab Emirates | Dubayy (Dubai) | 473 | 2 785 | 3 315 | 6.3 | 1.5 |
| 10 | China | Shantou | 724 | 4 174 | 5 083 | 6.3 | 1.6 |
| 11 | China | Xiamen | 639 | 3 585 | 4 376 | 6.2 | 1.7 |
| 12 | China | Yantai | 422 | 2 359 | 3 135 | 6.1 | 2.4 |
| 13 | China | Putian | 311 | 1 712 | 2 529 | 6.1 | 3.3 |
| 14 | Angola | Luanda | 1 474 | 7 774 | 12 129 | 5.9 | 3.7 |
| 15 | Mozambique | Matola | 319 | 1 635 | 2 418 | 5.8 | 3.3 |
| 16 | China | Ningbo | 752 | 3 815 | 5 169 | 5.8 | 2.5 |
| 17 | Indonesia | Bekasi | 624 | 3 159 | 4 332 | 5.8 | 2.6 |
| 18 | India | Kollam | 346 | 1 670 | 2 557 | 5.6 | 3.5 |
| 19 | Burkina Faso | Ouagadougou | 537 | 2 531 | 4 426 | 5.5 | 4.7 |
| 20 | Cameroon | Yaoundé | 777 | 3 656 | 5 734 | 5.5 | 3.8 |
| 21 | China | Nanning | 790 | 3 628 | 4 734 | 5.4 | 2.2 |
| 22 | China | Nantong | 470 | 2 123 | 2 828 | 5.4 | 2.4 |
| 23 | India | Thrissur | 615 | 2 774 | 4 221 | 5.4 | 3.5 |
| 24 | China | Shaoxing | 525 | 2 350 | 3 200 | 5.4 | 2.6 |
| 25 | India | Surat | 1 466 | 6 564 | 9 711 | 5.4 | 3.3 |
| 26 | Ghana | Kumasi | 696 | 3 065 | 4 681 | 5.3 | 3.5 |
| 27 | China | Handan | 575 | 2 528 | 3 423 | 5.3 | 2.5 |
| 28 | China | Zhengzhou | 1 134 | 4 940 | 6 669 | 5.3 | 2.5 |
| 29 | China | Hangzhou | 1 666 | 7 236 | 9 260 | 5.2 | 2.1 |
| 30 | China | Changzhou, Jiangsu | 784 | 3 372 | 4 526 | 5.2 | 2.5 |
| 31 | United Arab Emirates | Abu Zaby (Abu Dhabi) | 331 | 1 420 | 1 739 | 5.2 | 1.7 |
| 32 | United States of America | Raleigh | 310 | 1 327 | 1 767 | 5.2 | 2.4 |
| 33 | Yemen | Sana'a' | 653 | 2 779 | 4 174 | 5.2 | 3.4 |
| 34 | China | Chaozhou | 334 | 1 389 | 1 654 | 5.1 | 1.5 |
| 35 | United Republic of Tanzania | Dar es Salaam | 1 474 | 6 048 | 10 789 | 5.0 | 4.8 |
| | | Masqat (Muscat) | 353 | 1 447 | 1 838 | 5.0 | 2.0 |
| 36 | Oman | Charlotte | 461 | 1 886 | 2 520 | 5.0 | 2.4 |
| 37 | United States of America | | | | | | |

NOTE: Urban agglomerations are ordered according to the average annual rate of change in 1990-2018.

*The growth of largest cities*

In 2018, 20 countries accommodated 33 so-called megacities, that is, urban agglomerations with 10 million inhabitants or more. China and India, the two countries of the world with the largest populations, host six and five of these cities, respectively. Brazil, Japan, Pakistan, and the United States of America have two megacities each, and the remaining countries have one megacity each. Tokyo is the world's largest city with an agglomeration of 37 million inhabitants, followed by Delhi with 29 million, Shanghai with 26 million, São Paulo and Mexico City with 22 million each, and Cairo with 22 million (figure III.6 and table III.6).

As they have surpassed the 20 million mark, the largest megacities may also be referred to as "meta" or "hyper" cities. Tokyo was the first to become a member of the cluster of metacities, as it had already reached the 20 million mark in the mid-sixties. By 2020, Tokyo's population is projected to begin to decline, so that by the end of the next decade, it will be outnumbered by Delhi, defined in this publication as the National Capital Territory plus some contiguous suburban cities and towns. This land-locked metacity has surpassed the 20 million mark one decade ago, and is projected to become the most populous city in the world with 39 million people in 2030. The phenomenal population expansion of Delhi after the partition of the country has led to high population growth rates of about 5 per cent during 1970-1990, which are not expected to fall below 2 per cent in the projection period until 2030. Shanghai is the largest megacity in China and the third in the global ranking. Shanghai has been attracting population since the Pudong area was established in 1990 as a Special Economic Zone along the Huangpu River (Bracken, 2012). Today, Shanghai hosts 6 million more people than the capital city Beijing. Both Chinese metacities are expected to slow down their growth with annual rates below 1 per cent by 2030.

Mexico City and São Paulo are the two leading metropolitan areas in Latin America. Since the 1950s, Mexico City has outnumbered Brazil's economic and financial capital only by about 1 million people. Along with declines in economic growth driven by a process of de-industrialization in recent decades, Mexico City has seen a decline in population growth, with significant internal migration directed to medium-sized cities (UN-ECLAC, 2011). Population growth rates have also dropped in São Paulo during 1990-2018; however, São Paulo has slightly surpassed Mexico City and today, both metropolitan areas have reached comparable population sizes. Cairo, the only megacity in Africa, has reached the 10 million mark in the early 1990s, and is estimated to have surpassed 20 million in 2018. As mentioned in Section III.A, Cairo, which refers to the Governorate of Al-Qahirah and two surrounding districts, is a primate city housing almost 50 per cent of the urban population of Egypt, followed by Alexandria, with just over 5 million inhabitants.

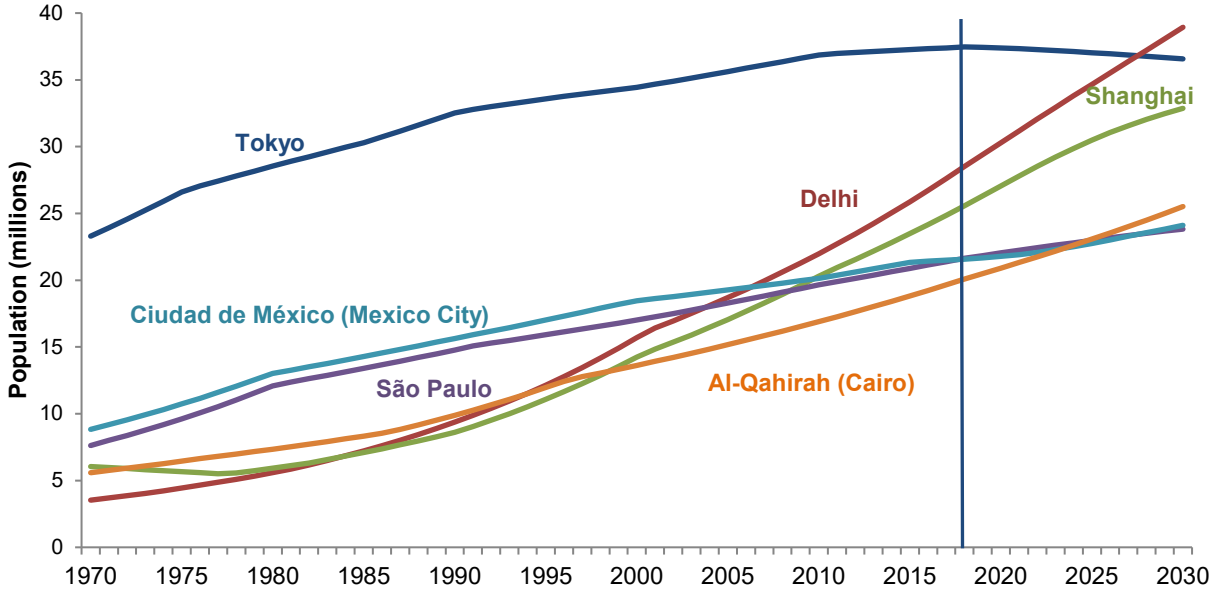
Among the remaining megacities, Mumbai, Beijing, Dhaka and Kinki M.M.A. (Osaka) are close to reach the 20 million mark. Dhaka is projected to move up in the position rank, and will become by 2030 the fourth largest city in the world after Delhi, Tokyo and Shanghai. On the other hand, the population of Kinki M.M.A. (Osaka) is likely to remain roughly unchanged in the next decades. Osaka and New York-Newark were the world's second and third largest urban agglomerations in 1970, but by 2030 they are projected to fall in rank to the 15th and 13th positions, respectively (figure III.6 and table III.6).

Jointly, the megacities are home to 529 million people, or about one in eight of the world's urban dwellers, and they range in size from about 10 million to 37 million inhabitants. Over the past four decades, they have grown at very different speeds. For example, during 1970-1990, three megacities in developed regions, New York-Newark, Paris and Osaka, expanded slowly, at rates below 1 per cent per year or remained stable. In contrast, African and Asian megacities, such as Delhi, Istanbul, Karachi, Lagos, Kinshasa, Dhaka, and Shenzhen had average annual growth rates above 4 per cent. During the next two

decades until 2018, only a few cities grew faster than in the previous period, and only one Chinese city grew at average annual rates of above 5 per cent. Eight large cities have become megacities recently, namely Bangalore, Bangkok, Bogotá, Jakarta, Kinshasa, Lahore, Lima and Madras. Over the projection period of 2018-2030, all but five megacities are expected to grow at lower rates than in the previous period (data not shown).

**Figure III.6. Population of the world's urban agglomerations with 15 million inhabitants or more in 2018, 1970-2030**

A. Urban agglomerations with 20 million inhabitants or more in 2018




B. Urban agglomerations with 15 to 20 million inhabitants in 2018

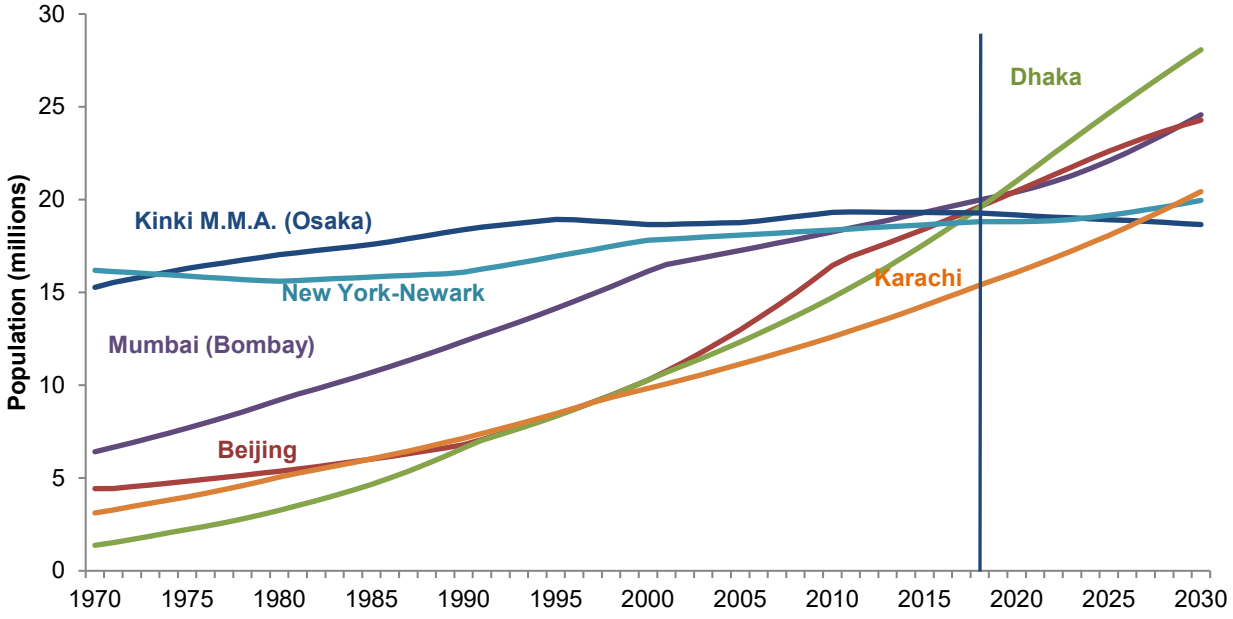


TABLE III.6. URBAN AGGLOMERATIONS WITH 5 MILLION INHABITANTS OR MORE, 1970, 2018 AND 2030

| *1970* | | | *2018* | | | *2030* | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Rank* | *Urban agglomeration* | *Population (thousands)* | *Rank* | *Urban agglomeration* | *Population (thousands)* | *Rank* | *Urban agglomeration* | *Population (thousands)* | *Rank* | *Urban agglomeration* | *Population (thousands)* |
| 1 | Tokyo | 23 298 | 1 | Tokyo | 37 468 | 1 | Delhi | 38 939 | 56 | Ningbo | 5 169 |
| 2 | New York-Newark | 16 191 | 2 | Delhi | 28 514 | 2 | Tokyo | 36 574 | 57 | Abuja | 5 119 |
| 3 | Kinki M.M.A. (Osaka) | 15 272 | 3 | Shanghai | 25 582 | 3 | Shanghai | 32 869 | 58 | Douala | 5 112 |
| 4 | Ciudad de México | 8 831 | 4 | São Paulo | 21 650 | 4 | Dhaka | 28 076 | 59 | Shantou | 5 083 |
| | (Mexico City) | | 5 | Ciudad de México | 21 581 | 5 | Al-Qahirah (Cairo) | 25 517 | 60 | Phoenix-Mesa | 5 081 |
| 5 | Buenos Aires | 8 416 | | (Mexico City) | | 6 | Mumbai (Bombay) | 24 572 | 61 | Suzhou, Jiangsu | 9 389 |
| 6 | Los Angeles-Long | 8 378 | 6 | Al-Qahirah (Cairo) | 20 076 | 7 | Beijing | 24 282 | 62 | Baghdad | 9 365 |
| | Beach-Santa Ana | | 7 | Mumbai (Bombay) | 19 980 | 8 | Ciudad de México | 24 111 | 63 | Hangzhou | 9 260 |
| 7 | Paris | 8 208 | 8 | Beijing | 19 618 | | (Mexico City) | | 64 | Shenyang | 8 569 |
| 8 | São Paulo | 7 620 | 9 | Dhaka | 19 578 | 9 | São Paulo | 23 824 | 65 | Ar-Riyadh (Riyadh) | 8 547 |
| 9 | London | 7 509 | 10 | Kinki M.M.A. (Osaka) | 19 281 | 10 | Kinshasa | 21 914 | 66 | Pune (Poona) | 8 442 |
| 10 | Kolkata (Calcutta) | 7 329 | 11 | New York-Newark | 18 819 | 11 | Lagos | 20 600 | 67 | Foshan | 8 350 |
| 11 | Moskva (Moscow) | 7 106 | 12 | Karachi | 15 400 | 12 | Karachi | 20 432 | 68 | Dongguan | 8 279 |
| 12 | Chicago | 7 106 | 13 | Buenos Aires | 14 967 | 13 | New York-Newark | 19 958 | 69 | Al-Khartum (Khartoum) | 8 023 |
| 13 | Rio de Janeiro | 6 791 | 14 | Chongqing | 14 838 | 14 | Chongqing | 19 649 | 70 | Hong Kong | 7 987 |
| 14 | Chukyo M.M.A. | 6 603 | 15 | Istanbul | 14 751 | 15 | Kinki M.M.A. (Osaka) | 18 658 | 71 | Haerbin | 7 597 |
| | (Nagoya) | | 16 | Kolkata (Calcutta) | 14 681 | 16 | Kolkata (Calcutta) | 17 584 | 72 | Addis Ababa | 7 352 |
| 15 | Mumbai (Bombay) | 6 413 | 17 | Manila | 13 482 | 17 | Istanbul | 17 124 | 73 | Houston | 7 254 |
| 16 | Shanghai | 6 052 | 18 | Lagos | 13 463 | 18 | Lahore | 16 883 | 74 | Santiago | 7 243 |
| 17 | Al-Qahirah (Cairo) | 5 585 | 19 | Rio de Janeiro | 13 293 | 19 | Manila | 16 841 | 75 | Abidjan | 7 136 |
| 18 | Seoul | 5 312 | 20 | Tianjin | 13 215 | 20 | Buenos Aires | 16 438 | 76 | Dallas-Fort Worth | 7 073 |
| | **TOTAL** | **162 020** | 21 | Kinshasa | 13 171 | 21 | Bangalore | 16 227 | 77 | Nairobi | 7 031 |
| | | | 22 | Guangzhou, | 12 638 | 22 | Guangzhou, Guangdong | 16 024 | 78 | Johannesburg | 6 978 |
| | | | | Guangdong | | 23 | Tianjin | 15 745 | 79 | Madrid | 6 907 |
| | | | 23 | Los Angeles-Long | 12 458 | 24 | Shenzhen | 14 537 | 80 | Dalian | 6 848 |
| | | | | Beach-Santa Ana | | 25 | Rio de Janeiro | 14 408 | 81 | Toronto | 6 793 |
| | | | 24 | Moskva (Moscow) | 12 410 | 26 | Chennai (Madras) | 13 814 | 82 | Qingdao | 6 684 |
| | | | 25 | Shenzhen | 11 908 | 27 | Los Angeles-Long | 13 209 | 83 | Zhengzhou | 6 669 |
| | | | 26 | Lahore | 11 738 | | Beach-Santa Ana | | 84 | Miami | 6 664 |
| | | | 27 | Bangalore | 11 440 | 28 | Moskva (Moscow) | 12 796 | 85 | Atlanta | 6 602 |
| | | | 28 | Paris | 10 901 | 29 | Hyderabad | 12 714 | 86 | Belo Horizonte | 6 583 |
| | | | 29 | Bogotá | 10 574 | 30 | Jakarta | 12 687 | 87 | Ji'nan, Shandong | 6 546 |
| | | | 30 | Jakarta | 10 517 | 31 | Bogotá | 12 343 | 88 | Al-Iskandariyah (Alexandria) | 6 417 |
| | | | 31 | Chennai (Madras) | 10 456 | 32 | Lima | 12 266 | 89 | Chittagong | 6 393 |
| | | | 32 | Lima | 10 391 | 33 | Luanda | 12 129 | 90 | Yangon | 6 389 |
| | | | 33 | Krung Thep | 10 156 | 34 | Krung Thep (Bangkok) | 12 101 | 91 | Hà Noi | 6 362 |
| | | | | (Bangkok) | | 35 | Paris | 11 710 | 92 | Singapore | 6 342 |
| | | | 34 | Seoul | 9 963 | 36 | Thành Pho Ho Chí Minh | 11 054 | 95 | Philadelphia | 6 114 |
| | | | 35 | Chukyo M.M.A. | 9 507 | | (Ho Chi Minh City) | | 94 | Guadalajara | 5 943 |
| | | | | (Nagoya) | | 37 | Nanjing, Jiangsu | 11 011 | 95 | Ankara | 5 869 |
| | | | 36 | Hyderabad | 9 482 | 38 | Dar es Salaam | 10 789 | 96 | Washington, D.C. | 5 868 |
| | | | 38 | Tehran | 8 896 | 39 | Chengdu | 10 728 | 97 | Barcelona | 5 812 |
| | | | 39 | Chicago | 8 864 | 40 | Tehran | 10 240 | 98 | Kabul | 5 737 |
| | | | 40 | Chengdu | 8 813 | 41 | London | 10 228 | 99 | Melbourne | 5 736 |

Table III.6 *(continued)*

| 1970 | | | 2018 | | | 2030 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| *Rank* | *Urban agglomeration* | *Population (thousands)* | *Rank* | *Urban agglomeration* | *Population (thousands)* | *Rank* | *Urban agglomeration* | *Population (thousands)* | *Rank* | *Urban agglomeration* | *Population (thousands)* |
| | | | 41 | Nanjing, Jiangsu | 8 245 | 42 | Seoul | 10 163 | 100 | Yaoundé | 5 734 |
| | | | 42 | Wuhan | 8 176 | 43 | Ahmadabad | 10 148 | 101 | Sankt Peterburg | 5 630 |
| | | | 43 | Thành Pho Ho Chí Minh | 8 145 | 44 | Xi'an, Shaanxi | 9 984 | | (Saint Petersburg) | |
| | | | | (Ho Chi Minh City) | | 45 | Kuala Lumpur | 9 805 | 102 | Monterrey | 5 621 |
| | | | 44 | Luanda | 7 774 | 46 | Surat | 9 711 | 103 | Ürümqi (Wulumqi) | 5 574 |
| | | | 45 | Ahmadabad | 7 681 | 47 | Wuhan | 9 611 | 104 | Sydney | 5 566 |
| | | | 46 | Kuala Lumpur | 7 564 | 48 | Chicago | 9 424 | 105 | Kano | 5 551 |
| | | | 47 | Xi'an, Shaanxi | 7 444 | 49 | Chukyo M.M.A. (Nagoya) | 9 407 | 106 | Changsha | 5 525 |
| | | | 48 | Hong Kong | 7 429 | 50 | Jiddah | 5 388 | 107 | Kampala | 5 506 |
| | | | 49 | Dongguan | 7 360 | 51 | Kunming | 5 335 | 108 | Cape Town | 5 468 |
| | | | 43 | Hangzhou | 7 236 | 52 | Changchun | 5 257 | 109 | Kitakyushu-Fukuoka | 5 395 |
| | | | 44 | Foshan | 7 196 | 53 | Hefei | 5 218 | | M.M.A. | |
| | | | 45 | Shenyang | 6 921 | 54 | Brasília | 5 199 | | | |
| | | | 46 | Ar-Riyadh (Riyadh) | 6 907 | 55 | Antananarivo | 5 189 | | | |
| | | | 47 | Baghdad | 6 812 | | **TOTAL** | **1,199,730** | | | |
| | | | 48 | Santiago | 6 680 | | | | | | |
| | | | 49 | Surat | 6 564 | | | | | | |
| | | | 50 | Madrid | 6 497 | | | | | | |
| | | | 51 | Suzhou, Jiangsu | 6 339 | | | | | | |
| | | | 45 | Pune (Poona) | 6 276 | | | | | | |
| | | | 46 | Haerbin | 6 115 | | | | | | |
| | | | 47 | Houston | 6 115 | | | | | | |
| | | | 48 | Dallas-Fort Worth | 6 099 | | | | | | |
| | | | 49 | Toronto | 6 082 | | | | | | |
| | | | 50 | Dar es Salaam | 6 048 | | | | | | |
| | | | 51 | Miami | 6 036 | | | | | | |
| | | | 52 | Belo Horizonte | 5 972 | | | | | | |
| | | | 53 | Singapore | 5 792 | | | | | | |
| | | | 54 | Philadelphia | 5 695 | | | | | | |
| | | | 55 | Atlanta | 5 572 | | | | | | |
| | | | 56 | Kitakyushu-Fukuoka M.M.A. | 5 551 | | | | | | |
| | | | 57 | Al-Khartum (Khartoum) | 5 534 | | | | | | |
| | | | 58 | Barcelona | 5 494 | | | | | | |
| | | | 59 | Johannesburg | 5 486 | | | | | | |
| | | | 60 | Sankt Peterburg (Saint Petersburg) | 5 383 | | | | | | |
| | | | 61 | Qingdao | 5 381 | | | | | | |
| | | | 62 | Dalian | 5 300 | | | | | | |
| | | | 63 | Washington, D.C. | 5 207 | | | | | | |
| | | | 64 | Yangon | 5 157 | | | | | | |
| | | | 65 | Al-Iskandariyah (Alexandria) | 5 086 | | | | | | |
| | | | 66 | Ji'nan, Shandong | 5 052 | | | | | | |
| | | | 67 | Guadalajara | 5 023 | | | | | | |
| | | | | **TOTAL** | **853 993** | | | | | | |

The highest absolute population increment between 2018 and 2030 is projected to occur in Delhi, which is expected to add around 870,000 persons per year to its current population, followed by Kinshasa (adding around 730,000), Dhaka (adding 700,000) and Shanghai (adding 600,000) (figure III.6). The projections for Bangalore, Delhi, Dhaka, Lagos, Lahore and Kinshasa megacities indicate that they may grow by 2.5 per cent or more annually (data not shown).

From 2018 to 2030, 10 cities are expected to join the group of megacities of today, so that by 2030, 43 urban agglomerations of 10 million inhabitants or more will host around 730 million people worldwide. The number of metacities with 20 million inhabitants or more, for their part, will increase from 6 to 12 during that same period. Cities that are expected to surpass for the first time the 10 million mark before 2030 are located in countries that as of now had no megacities, except for China and India, who will be adding two more cities each. Notably, there are varying degrees of uncertainty in the projections of cities, with greater uncertainty for cities like Kinshasa where census data have not been collected or reported in decades. In all, ten more cities are expected to join the group of megacities between 2018 and 2030; 2 in Africa, 7 in Asia, and one in Europe. Among them, four are capital cities (London, Luanda, Seoul and Tehran), which will join the current group of ten capital cities with 10 million inhabitants or more (table III.6).

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# IV. SOURCE OF DATA ON URBAN AND CITY POPULATION

This chapter contains information on the sources of data used in estimating and projecting the population of urban areas and urban agglomerations. It presents the sources of data and the definitions underlying the data on urban populations. The definitions presented are generally those used by national statistical offices in carrying out the latest available census. When the definition used in the latest census was not the same as in previous censuses, the data were adjusted whenever possible so as to maintain consistency. In cases where adjustments were made in such a way as to ensure consistency with the definition used in previous censuses, that information is included in the sources listed below. United Nations estimates and projections are based, to the extent possible, on actual enumerations. In some cases, however, it was desirable to incorporate official or other estimates of urban population size as part of the input for the estimation of trends. The sources below indicate when that was done.

For the statistical concepts underlying the data used in estimating and projecting the populations of urban agglomerations and capital cities see Box III.1 and United Nations 2018a. The sources of data used in estimating and projecting the population of urban agglomerations and capital cities is available online (WUP2018-DataSource-UrbanAgglomeration-and-CapitalCities.xls).

**Afghanistan**
***Sources of data:*** Census of 1979; Estimates for 1950, 2004 and 2016; UN Estimate for 1988.
***Definition:*** Sixty-six localities and provincial centres.

**Albania**
***Sources of data:*** Censuses of 1950, 1955, 1960, 1969, 1979, 2001 and 2011; Estimate for 1991.
***Definition:*** Towns and other industrial centres with 400 inhabitants or more.

**Algeria**
***Sources of data:*** Censuses of 1954, 1960, 1966, 1977, 1987, 1998 and 2008.
***Definition:*** For 1998 and 2008, agglomerations with 5,000 inhabitants or more, non-agricultural economic activity, connection to water supply network, connection to electricity network, connection to network of sanitation and additional conditions.

**American Samoa**
***Sources of data:*** Censuses of 2000 and 2010; UN Estimates for 1970, 1980 and 1990.
***Definition:*** Densely settled territory that meets minimum population density requirements and with 2,500 inhabitants or more.

**Andorra**
***Sources of data:*** Estimates for 1985, 1990, 2000, 2004, 2007 and 2017; UN Estimates for 1950 and 1960.
***Definition:*** Parishes of Andorra la Vella, Escaldes-Engordany, Saint Julia, Encamp and La Massana.

**Angola**
***Sources of data:*** Censuses of 1960, 1970 and 2014; Estimates for 1950 and 1994; UN Estimate for 2005.
***Definition:*** Geographic areas with a high population density and concentrated population groups with a high level of infrastructure.

**Anguilla**
***Sources of data:*** UN Estimates for 1960, 1974, 1984, 1992, 2001 and 2011.
***Definition:*** In the absence of more detailed information the entire population is considered urban.

**Antigua and Barbuda**
***Sources of data:*** Censuses of 1960, 1970, 1991, 2001 and 2011; UN Estimate for 2015.
***Definition:*** St. John's (capital).

**Argentina**
***Sources of data:*** Censuses of 1960, 1970, 1980, 1991, 2001 and 2010; Estimate for 2017.
***Definition:*** Localities with 2,000 inhabitants or more.

**Armenia**
***Sources of data:*** Censuses of 1959, 1970, 1979, 1989, 2001 and 2011; Estimate for 1974.
***Definition:*** Cities and urban-type localities, officially designated as such, usually according to the number of inhabitants and predominance of non-agricultural workers and their families.

**Aruba**
***Sources of data:*** Censuses of 1991, 2000 and 2010; Estimate for 1965; UN Estimate for 2011.
***Definition:*** Oranjestad (capital) and San Nicolaas.

**Australia**
***Sources of data:*** Censuses of 1954, 1961, 1966, 1981 and 1991; Estimates for 2001, 2006, 2011 and 2016.
***Definition:*** For 2001 and later, Significant Urban Centres representing concentrations of urban development with 10,000 inhabitants or more. Before 2001, urban centres with 1,000 inhabitants or more.

**Austria**
***Sources of data:*** Censuses of 1951, 1961, 1971, 1981 and 2011; Estimate for 2017.
***Definition:*** For 2011 and later, urban centres and regional centres identified in Statistics Austria's 2013 Urban-Rural Typology. For 1951 to 1981, functional and structural urban areas (*Stadtregion*) consisting of an urban core area (*Kernzone*) and surrounding urban areas (*Außenzone*). Surrounding urban areas are those where at least 30 per cent of working adults commute into the urban core area.

**Azerbaijan**
***Sources of data:*** Censuses of 1959, 1970, 1979, 1989, 1999 and 2009; Estimates for 1974 and 1984.
***Definition:*** Cities and urban-type localities, officially designated as such, usually according to the criteria of number of inhabitants and predominance of non-agricultural workers and their families.

**Bahamas**
***Sources of data:*** Censuses of 1963, 1980, 1990, 2000 and 2010; Estimate for 1953.
***Definition:*** For 1980 and later, sum of the cities.

**Bahrain**
***Sources of data:*** Censuses of 1959, 1965, 1991 and 2001; UN Estimate for 1950.
***Definition:*** Communes or villages with 2,500 inhabitants or more. For consistency, the 1971 and 1981 census estimates were excluded.

**Bangladesh**
***Sources of data:*** Censuses of 1951, 1961, 1974, 1981, 1991 and 2001; UN Estimate for 2011.
***Definition:*** Localities having a municipality (*pourashava*), town (*shahar*) committee or cantonment board. In general, urban areas are a concentration of 5,000 inhabitants or more in a continuous collection of houses where the community sense is well developed and the community maintains public utilities, such as roads, street lighting, water supply, sanitary arrangements, etc. These places are generally centres of trade and commerce where the labour force is mostly non-agricultural and literacy levels are high. An area that has urban characteristics but has fewer than 5,000 inhabitants may, in special cases, be considered urban.

**Barbados**
***Sources of data:*** Censuses of 1970, 1980, 1990, 2000 and 2010.
***Definition:*** Bridgetown (capital).

**Belarus**
***Sources of data:*** Censuses of 1959, 1970, 1979, 1989, 1999 and 2009; Estimates for 1964, 1974, 1984 and 2017.
***Definition:*** Cities and urban-type localities (towns, semi-urban centres, industrial communities and health resort communities), officially designated as such.

**Belgium**
***Sources of data:*** Census of 1981; Estimates for 1976 and 2017; UN Estimates for 1961 and 2000.
***Definition:*** Communes with 5,000 inhabitants or more.

**Belize**
***Sources of data:*** Censuses of 1960, 1970, 1980, 1991, 2000 and 2010.
***Definition:*** Belize City and all towns.

**Benin**
***Sources of data:*** Censuses of 1992, 2002 and 2013; Estimate for 1979; Sample Survey of 1961.
***Definition:*** Localities with 10,000 inhabitants or more.

**Bermuda**
***Sources of data:*** Censuses of 1950, 1960, 1970, 1980, 1991, 2000 and 2010.
***Definition:*** Entire population.

**Bhutan**
***Sources of data:*** Census of 2005; Estimates for 1950 and 2011.
***Definition:*** Areas satisfying at least 4 out of the following 5 conditions: (1) 1,500 inhabitants or more; (2) 1,000 inhabitants or more per square kilometre; (3) more than 50 per cent of the population depends on economic activity outside of the primary (e.g., agriculture, livestock and forestry) sector; (4) area of the urban centre is 1.5 square kilometres or larger; and (5) identified potential for future growth of the urban centre, particularly in terms of its revenue base. As of 2005, there were 28 declared urban centres and 26 satellite towns.

**Bolivia (Plurinational State of)**
***Sources of data:*** Censuses of 1950, 1976, 1992, 2001 and 2012; Estimate for 2017.
***Definition:*** Localities with 2,000 inhabitants or more.

**Bosnia and Herzegovina**
***Sources of data:*** Censuses of 1953, 1961, 1971, 1981, 1991 and 2013.
***Definition:*** Settlements officially designated as urban.

**Botswana**
***Sources of data:*** Censuses of 1964, 1971, 1981, 1991, 2001 and 2011; Estimates for 2006 and 2017; UN Estimate for 1950.
***Definition:*** Agglomerations of 5,000 inhabitants or more where at least 75 per cent of the economic activity is non-agricultural.

**Brazil**
***Sources of data:*** Censuses of 1950, 1960, 1970, 1996, 2000 and 2010; Estimate for 2015.
***Definition:*** Administrative centres of *municipios* and districts, including suburban zones.

**British Virgin Islands**
***Sources of data:*** Census of 2001; UN Estimates for 1960, 1970, 1980 and 1991.
***Definition:*** Road Town (capital).

**Brunei Darussalam**
***Sources of data:*** Censuses of 1960, 1971, 1991, 2001 and 2011.
***Definition:*** Municipalities and areas having urban socio-economic characteristics.

**Bulgaria**
***Sources of data:*** Censuses of 1956, 1965, 1975, 1985, 1992, 2001 and 2011; Estimates for 1960, 1970 and 1980.
***Definition:*** Localities officially designated as urban (towns).

**Burkina Faso**
***Sources of data:*** Censuses of 1960, 1975, 1985, 1996 and 2006; Estimate for 2015.
***Definition:*** Cities and urban-type localities (communes), officially designated as such, according to socio-economic characteristics such as a non-agricultural economy.

**Burundi**
***Sources of data:*** Censuses of 1965, 1979, 1990 and 2008; Estimate for 1998.
***Definition:*** Commune of Bujumbura.

**Cabo Verde**
***Sources of data:*** Censuses of 1960, 1970, 1980, 1990, 2000 and 2010; Estimates for 1985 and 2015; UN Estimate for 1950.
***Definition:*** Cities and towns as defined in the administrative division.

**Cambodia**
***Sources of data:*** Censuses of 1962, 1980, 1998 and 2008; Estimates for 1950, 1966 and 2017; UN Estimates for 1970, 1975, 1975 and 1979.
***Definition:*** For 1998 and later, communes that meet at least one of the following criteria: (1) population density exceeding 200 persons per square kilometre, (2) percentage of male employment in agriculture below 50 per cent, or (3) 2,000 inhabitants or more. For 1962 and 1980, municipalities of Phnom Penh, Bokor and Kep, as well as 13 additional urban centres.

**Cameroon**
***Sources of data:*** Censuses of 1976, 1987 and 2005; Estimates for 1959 and 1970.
***Definition:*** Administrative centres of territorial units (district, sub-division, division or province) or any locality with 5,000 inhabitants or more and with sufficient socio-economic and administrative infrastructures.

**Canada**
***Sources of data:*** Censuses of 1951, 1956, 1961, 1966, 1971, 1976, 1981, 1986, 1991, 1996, 2001, 2006, 2011 and 2016.
***Definition:*** For 1981 and later, areas with 1,000 inhabitants or more and at least 400 inhabitants per square kilometre. The definition of urban has changed slightly between 1951 and 1981.

**Caribbean Netherlands**
***Sources of data:*** Censuses of 1960, 1972, 1981, 1992 and 2001; Estimate for 2013.
***Definition:*** The island of Bonaire.

**Cayman Islands**
***Sources of data:*** Censuses of 1960, 1970, 1979, 1989, 1999 and 2010; Sample Survey of 2007.
***Definition:*** Entire population.

**Central African Republic**
***Sources of data:*** Censuses of 1975, 1988 and 2003; Estimates for 1960, 1963 and 1967.
***Definition:*** Principal centres with 3,000 inhabitants or more.

**Chad**
***Sources of data:*** Censuses of 1993 and 2009; Estimates for 1972 and 1978; Sample Survey of 1964; UN Estimate for 1950.
***Definition:*** Administrative centres of *prefectures*, *sous-prefectures* and administrative posts.

**Channel Islands**
***Sources of data:*** Censuses of 1971, 1981, 1986, 1991, 1996 and 2001; Estimates for 2011 and 2016.
***Definition:*** Civil Parish of St. Peter Port, Guernsey; Civil Parish of St. Helier, Jersey.

**Chile**
***Sources of data:*** Censuses of 1952, 1960, 1970, 1982, 1992, 2002 and 2015.
***Definition:*** Populated centres with defined urban characteristics, such as certain public and municipal services.

**China**
***Sources of data:*** Censuses of 1953, 1964, 1982, 1990, 2000 and 2010; Estimates for 1965, 1970, 1972, 1975, 1977, 2005 and 2016.
***Definition:*** For 1982 and earlier, total population of cities and towns. Cities had 100,000 inhabitants or more or commanded special administrative, strategic, or economic importance. Towns were either settlements with 3,000 inhabitants or more, of whom more than 70 per cent were registered as non-agricultural, or settlements with between 2,500 and 3,000 inhabitants, of whom more than 85 per cent were registered as non-agricultural. For 1990, all residents of urban districts in provincial and prefectural-level cities, the resident population of streets (*jiedao*) in county-level cities, and the population of all resident committees in towns. For 2000, population of city districts with average population density of at least 1,500 persons per square kilometre, population of suburban-district units and township-level units meeting certain criteria, such as having contiguous built-up area, being the location of the local government, or being a street (*jiedao*) or having a resident committee. For 2010, urban residents meeting the criterion defined by the National Bureau of Statistics of China in 2008, i.e., the criteria used in the 2000 census plus residents living in villages or towns in outer urban and suburban areas that are directly connected to municipal infrastructure and that receive public services from urban municipalities.

**China, Hong Kong SAR**
***Sources of data:*** Censuses of 1961, 1971, 1981, 1986, 1991, 1996, 2001, 2006, 2011 and 2016; UN Estimate for 1950.
***Definition:*** Hong Kong Island, New Kowloon and new towns in New Territories.

**China, Macao SAR**
***Sources of data:*** Censuses of 1950, 1960, 1970, 2001, 2006, 2011 and 2016; UN Estimates for 1981 and 1995.
***Definition:*** For 2001 and later, the entire population. Before 2001, the entire population except for the maritime population and residents of Coloane, Taipa, and Co-Thai.

**China, Taiwan Province of China**
***Sources of data:*** Censuses of 1974, 1990, 2000 and 2010; UN Estimates for 1958 and 1964.
***Definition:*** A place meeting one of three criteria: (1) more than 70 per cent of the population engaged in non-agricultural sectors and at least 300 inhabitants per square kilometre; (2) at least 2,000 inhabitants per square kilometre; (3) having at least three of the following: the government seat, a police station or branch, a railway or bus station, a public primary, middle, or high school, a post office, a hospital or clinic, and a cinema. Hilly villages with police, transit and schools, but none of the other facilities, are not considered urban.

**Colombia**
***Sources of data:*** Censuses of 1951, 1964, 1973, 1985, 1993 and 2005.
***Definition:*** Administrative headquarters (*población cabecera*) with 2,000 inhabitants or more.

**Comoros**
***Sources of data:*** Censuses of 1966, 1980, 1991 and 2003; UN Estimate for 1950.
***Definition:*** Administrative centres of prefectures and localities with 5,000 inhabitants or more.

**Congo**
***Sources of data:*** Censuses of 1960, 1974, 1984, 1996 and 2007.
***Definition:*** For 1984 and later, six communes: Brazzaville, Pointe-Noire, Dolisie/Loubomo, Nkayi, Ouesso and Mossendjo.

**Cook Islands**
***Sources of data:*** Censuses of 1956, 1966, 1971, 1976, 1981, 1986, 1991, 1996, 2001, 2006, 2011 and 2016.
***Definition:*** Island of Rarotonga.

**Costa Rica**
***Sources of data:*** Censuses of 1950, 1963, 1973, 1984, 2000 and 2011.
***Definition:*** Administrative centres of cantons or districts, including adjacent areas with clear urban characteristics such as streets, urban services (waste management, street lighting), and economic activities.

**Côte d'Ivoire**
***Sources of data:*** Censuses of 1958, 1975, 1988, 1998 and 2014; Sample Survey of 1965 and 1978.
***Definition:*** Agglomerations with 10,000 inhabitants or more; agglomerations with between 4,000 and 10,000 inhabitants and with more than 50 per cent of households engaged in non-agricultural activities; and the administrative centres of Grand Lahoun and Dabakala.

**Croatia**
***Sources of data:*** Censuses of 1953, 1961, 1971, 1981, 1991, 2001 and 2011.
***Definition:*** Administrative seats of towns; settlements with 10,000 inhabitants or more; settlements with between 5,000 and 9,999 inhabitants and with at least 25 per cent employed in the secondary or tertiary sectors; settlements with between 2,000 and 4,999 in habitants and with at least 25 per cent employed in the secondary or tertiary sectors and with at least 50 per cent non-agricultural households.

**Cuba**
***Sources of data:*** Censuses of 1953, 1970, 1981, 2002 and 2012; Estimates for 1990, 1996 and 2016.
***Definition:*** Administrative centres of municipalities and provinces and settlements of 2,000 inhabitants or more with urban characteristics, such as streets, street lighting, water-supply and sewerage systems, waste management, planned public spaces, medical centres, educational facilities, communication services and trade.

**Curaçao**
***Sources of data:*** Censuses of 1992, 2001 and 2011; UN Estimate for 1960.
***Definition:*** Willemstad (capital).

**Cyprus**
***Sources of data:*** Censuses of 1956, 1960, 1973, 1982, 1992, 2001 and 2011.
***Definition:*** Six district towns and the suburbs of Nicosia and Larnaka.

**Czechia**
***Sources of data:*** Censuses of 1950, 1961, 1970, 1980, 1991 and 2001; Estimates for 2011 and 2016.
***Definition:*** Municipalities with 2,000 inhabitants or more.

**Dem. People's Republic of Korea**
***Sources of data:*** Censuses of 1993 and 2008; Estimates for 1950, 1960, 1967, 1970, 1975 and 1980; Sample Survey of 2014.
***Definition:*** No official definition available.

**Democratic Republic of the Congo**
***Sources of data:*** Census of 1984; Estimates for 1950 and 1960; UN Estimate for 2004.
***Definition:*** Places with 2,000 inhabitants or more where the predominant economic activity is non-agricultural; and places with fewer than 2,000 inhabitants that are considered urban because of their type of economic activity (predominantly non-agricultural).

**Denmark**
***Sources of data:*** Censuses of 1950, 1955, 1960, 1965 and 1970; Estimates for 1990, 2000, 2001, 2003 and 2004; Registers of 1976, 1981, 2006, 2009, 2011, 2013 and 2017.
***Definition:*** Localities with 200 inhabitants or more.

**Djibouti**
***Sources of data:*** Censuses of 1960, 1983 and 2009; Estimate for 1956; Sample Survey of 1991.
***Definition:*** For 2009, Djibouti ville, and urban and rural sedentary populations of the regions of Ali Sabieh, Dikhil, Tadjourah, Obock and Arta. For 1991, nine towns: Djibouti (capital), Dikhil, Ali-Sabieh, Tadjourah, Obock, Arta, Damerjog, Yoboki and Randa. For 1983, the urban population of the districts of Djibouti, Ali-Sabieh, Dikhil, Tadjourah and Obock. For 1956 and 1960, Djibouti (capital).

**Dominica**
***Sources of data:*** Censuses of 1960, 1970, 1981, 1991, 2001 and 2011.
***Definition:*** Cities and villages with 1,000 inhabitants or more.

**Dominican Republic**
***Sources of data:*** Censuses of 1950, 1960, 1970, 1981, 1993, 2002 and 2010; Estimate for 2017.
***Definition:*** Administrative centres of communes and municipal districts.

**Ecuador**
***Sources of data:*** Censuses of 1950, 1962, 1974, 1982, 1990, 2001 and 2010; Estimate for 2017.
***Definition:*** Capitals of provinces and cantons.

**Egypt**
***Sources of data:*** Censuses of 1960, 1976, 1986, 1996 and 2006; Estimates for 2011 and 2016.
***Definition:*** Governorates of Al-Qahirah (Cairo), Al-Iskandariyah (Alexandria), Bur Sa'id (Port Said), Al-Isma'iliyah (Ismailia) and As-Suways (Suez); frontier governorates; and capitals of other governorates as well as district capitals (*markaz*).

**El Salvador**
***Sources of data:*** Censuses of 1950, 1961, 1971, 1992 and 2007; Estimates for 1998 and 2015.
***Definition:*** For 2007, the head of the municipality, where the primary civil, religious and military authorities reside, and those areas having a continuous cluster of at least 500 dwellings, with street lighting service, basic schools, regular transportation service, paved or cobbled streets and telephone services. For 1971, areas where authorities of the municipality reside, as determined by those authorities.

**Equatorial Guinea**
***Sources of data:*** Censuses of 1950, 1960, 1983, 1994 and 2015; UN Estimate for 2012.
***Definition:*** District centres and localities with 300 dwellings or more or with 1,500 inhabitants or more.

**Eritrea**
***Sources of data:*** Census of 1984; Sample Survey of 2010; UN Estimates for 1950, 1967 and 2008.
***Definition:*** Localities with 2,000 inhabitants or more.

**Estonia**
***Sources of data:*** Censuses of 1959, 1970, 1979, 1989, 2000 and 2011; Estimate for 2016.
***Definition:*** Officially designated urban settlements including cities, cities without municipal status and towns.

**Eswatini**
***Sources of data:*** Censuses of 1956, 1966, 1976, 1997 and 2007; Estimates for 2011 and 2015; UN Estimate for 1950.
***Definition:*** Localities officially designated as urban.

**Ethiopia**
***Sources of data:*** Censuses of 1984, 1994 and 2007; Estimates for 1950, 1967, 2012 and 2017.
***Definition:*** Localities with 2,000 inhabitants or more.

**Faeroe Islands**
***Sources of data:*** Censuses of 1950, 1955, 1960, 1966, 1970 and 1977; Estimates for 1989, 1990, 1996, 1997, 1998, 1999, 2002, 2005, 2010 and 2017.
***Definition:*** Torshavn (capital).

**Falkland Islands (Malvinas)**
***Sources of data:*** Censuses of 1972, 1980, 1986, 1991, 1996, 2001, 2006 and 2012; Estimates for 1953 and 1962.
***Definition:*** Stanley.

**Fiji**
***Sources of data:*** Censuses of 1956, 1966, 1976, 1986, 1996, 2007 and 2017.
***Definition:*** Places with 1,000 inhabitants or more.

**Finland**
***Sources of data:*** Censuses of 1960, 1970 and 1980; Registers of 1985, 1990, 1995, 2000, 2009, 2012 and 2016; UN Estimate for 1950.
***Definition:*** Communes officially designated as urban.

**France**
***Sources of data:*** Censuses of 1954, 1962, 1968, 1975, 1982, 1990, 1999 and 2007.
***Definition:*** Based on the concept of urban unit, namely communes with 2,000 inhabitants or more in dwellings separated by at most 200 metres.

**French Guiana**
***Sources of data:*** Censuses of 1954, 1961, 1967, 1982, 1990 and 2006.
***Definition:*** No official definition available.

**French Polynesia**
***Sources of data:*** Censuses of 1962, 1977, 1983, 1988, 1996, 2002, 2012 and 2017; Estimates for 1956 and 1971.
***Definition:*** No official definition available. In the present publication, for 2017, the urban agglomeration of Papeete and communes with 5,000 inhabitants or more. For 2012, the same communes as in 2017.

**Gabon**
***Sources of data:*** Censuses of 1961, 1993 and 2013; Estimates for 1950, 1970, 1981 and 1987.
***Definition:*** For 1993 and later, towns with 3,000 inhabitants or more.

**Gambia**
***Sources of data:*** Censuses of 1951, 1963, 1973, 1983, 1993, 2003 and 2013.
***Definition:*** For 2013, settlements with 5,000 inhabitants or more. For 2003, settlements that meet most of the following criteria: some commercial and institutional importance, non-agricultural occupation for a majority of the population, 5,000 inhabitants or more, high density, and some degree of infrastructure. For 1993 and earlier, no official definition available.

**Georgia**
***Sources of data:*** Censuses of 1959, 1970, 1979, 1989, 2002 and 2014.
***Definition:*** Cities and urban-type localities, officially designated as such, usually according to criteria surrounding the number of inhabitants and the predominance of non-agricultural workers and their families.

**Germany**
***Sources of data:*** Censuses of 1950 and 1961; Estimates for 1970, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 2011 and 2015.
***Definition:*** Communes (*kreisfreie Staedte* and *Kreise*) with at least 150 inhabitants per square kilometre.

**Ghana**
***Sources of data:*** Censuses of 1960, 1970, 1984, 2000 and 2010.
***Definition:*** Localities with 5,000 inhabitants or more.

**Gibraltar**
***Sources of data:*** Censuses of 1951, 1961, 1970, 1981, 1991 and 2001.
***Definition:*** Entire population.

**Greece**
***Sources of data:*** Censuses of 1951, 1961, 1971, 1981, 1991, 2001 and 2011.
***Definition:*** Municipalities and communes in the largest population centre with 10,000 inhabitants or more, plus 18 urban agglomerations as defined in the 1991 census: Greater Athens (Athínai), Thessaloniki, Pátrai, Iraklion, Vólos, Chania, Irannina, Chalkida, Agrino, Kalamata, Katerini, Kerkyra, Salamina, Chios, Egio, Rethymno, Ermoúpolis and Spárti.

**Greenland**
***Sources of data:*** Censuses of 1960, 1965, 1970 and 1976; Estimates for 1992, 1996, 2000 and 2016; Registers of 2005, 2011 and 2013; UN Estimate for 1950.
***Definition:*** Localities with 200 inhabitants or more.

**Grenada**
***Sources of data:*** Censuses of 1960, 1970, 1981, 1991, 2001 and 2011.
***Definition:*** No official definition available. In the present publication, the parish of St. George.

**Guadeloupe**
***Sources of data:*** Estimates for 1999 and 2006; UN Estimate for 1950.
***Definition:*** For 1999 and 2006, communes with 2,000 inhabitants or more.

**Guam**
***Sources of data:*** Censuses of 2000 and 2010; UN Estimates for 1950, 1960, 1970, 1980 and 1990.
***Definition:*** For 2000 and 2010, densely settled territory that meets minimum population density requirements and with 2,500 inhabitants or more. The proportion urban for earlier years was adjusted for consistency with the new definition.

**Guatemala**
***Sources of data:*** Censuses of 1950, 1964, 1973 and 2002; Estimate for 2012.
***Definition:*** The *municipio* of Guatemala Department and officially recognized centres of other departments and municipalities.

**Guinea**
***Sources of data:*** Censuses of 1955, 1983, 1996 and 2014.
***Definition:*** Administrative centres of prefectures.

**Guinea-Bissau**
***Sources of data:*** Censuses of 1950, 1960, 1979, 1991 and 2009.
***Definition:*** For 2009 and later, cities and towns, officially designated as such, according to the administrative division of the country.

**Guyana**
***Sources of data:*** Censuses of 1950, 1960, 1970, 1980, 2002 and 2012; UN Estimate for 2011.
***Definition:*** City of Georgetown (capital), and four other towns.

**Haiti**
***Sources of data:*** Censuses of 1950, 1971, 1982 and 2003; Estimates for 1992, 1996, 2000 and 2015.
***Definition:*** Administrative centres of communes.

**Holy See**
***Sources of data:*** Estimates for 1950, 1960, 1970, 1980, 1990, 2000 and 2010; UN Estimates for 1965, 1975, 1985 and 1995.
***Definition:*** Entire population.

**Honduras**
***Sources of data:*** Censuses of 1961, 1974, 1988, 2001 and 2013.
***Definition:*** Populated centres with 2,000 inhabitants or more that also meet the following criteria: piped water service; communication by

land (road or train) or regular air or maritime service; complete primary school (six grades); postal service or telegraph; and at least one of the following: electrical light, sewer system, or a health centre.

**Hungary**
***Sources of data:*** Censuses of 1960, 1970, 1980, 1990, 2001 and 2011; Estimates for 2005, 2009 and 2015.
***Definition:*** Budapest (capital) and all legally designated towns.

**Iceland**
***Sources of data:*** Census of 1950; Estimates for 1960, 1970, 1980, 1990, 1998, 2010, 2012 and 2015.
***Definition:*** Localities with 200 inhabitants or more.

**India**
***Sources of data:*** Censuses of 1951, 1961, 1971, 1981, 1991, 2001 and 2011.
***Definition:*** Statutory places with a municipality, corporation, cantonment board or notified town area committee and places satisfying all of the following three criteria: (1) 5,000 inhabitants or more; (2) at least 75 per cent of male working population engaged in non-agricultural pursuits; and (3) at least 400 inhabitants per square kilometre.

**Indonesia**
***Sources of data:*** Censuses of 1961, 1971, 1980, 1990, 2000 and 2010; Estimates for 1950 and 2015.
***Definition:*** Municipalities (*kotamadya*), regency capitals (*kabupaten*) and other places with urban characteristics.

**Iran (Islamic Republic of)**
***Sources of data:*** Censuses of 1956, 1966, 1976, 1986, 1991, 1996, 2006, 2011 and 2016.
***Definition:*** For 1986 and later, districts with a municipality. Prior to 1986, all county centres (*shahrestan*) regardless of size and places with 5,000 inhabitants or more.

**Iraq**
***Sources of data:*** Censuses of 1957, 1965, 1977, 1987, 1997 and 2009; Estimate for 2015.
***Definition:*** Municipality councils (Al-Majlis Al-Baldei).

**Ireland**
***Sources of data:*** Censuses of 1951, 1956, 1966, 1971, 1981, 1986, 1991, 1996, 2002, 2006 and 2016.
***Definition:*** Population clusters with 1,500 inhabitants or more (aggregate town areas, including suburbs).

**Isle of Man**
***Sources of data:*** Censuses of 1951, 1961, 1966, 1971, 1976, 1981, 1986, 1991, 1996, 2001 and 2011.
***Definition:*** Towns of Castletown, Douglas, Peel and Ramsey.

**Israel**
***Sources of data:*** Censuses of 1961, 1972, 1983, 1995 and 2008; Estimates for 1953 and 1955.
***Definition:*** Settlements with 2,000 inhabitants or more, except those where at least one third of the households participating in the civilian labour force earn their living from agriculture.

**Italy**
***Sources of data:*** Censuses of 1951, 1961, 1971, 1981, 1991, 2001 and 2011; Estimate for 2016.
***Definition:*** Communes with 10,000 inhabitants or more.

**Jamaica**
***Sources of data:*** Censuses of 1960, 1970, 1982, 1991, 2001 and 2011.
***Definition:*** Kingston metropolitan area and selected main towns.

**Japan**
***Sources of data:*** Censuses of 1960, 1965, 1970, 1975, 1980, 1985, 1990, 1995, 2000, 2005, 2010 and 2015.
***Definition:*** Cities defined as *shi*. In general, *shi* refers to a municipality that satisfies the following conditions: (1) 50,000 inhabitants or more; (2) 60 per cent or more of the houses located in the main built-up areas; (3) 60 per cent or more of the population (including their dependents) engaged in manufacturing, trade or other urban type of business.

**Jordan**
***Sources of data:*** Censuses of 1952, 1961, 1979, 1994, 2004 and 2015; Estimate for 1967; UN Estimates for 1950 and 2014.
***Definition:*** Localities with 5,000 inhabitants or more as well as the district and sub-district centres of each governorate irrespective of population size.

**Kazakhstan**
***Sources of data:*** Censuses of 1959, 1970, 1979, 1989 and 1999; Estimates for 1964, 1974, 1984, 1994 and 2017.
***Definition:*** Cities and urban-type localities, officially designated as such, usually according to criteria based on the number of inhabitants and the predominance of non-agricultural workers and their families.

**Kenya**
***Sources of data:*** Censuses of 1962, 1969, 1979, 1989, 1999 and 2009.
***Definition:*** Municipalities, town councils, and other urban centres with 2,000 inhabitants or more. Due to substantial changes in the 1999 census delineations of urban areas, only the population of the "urban core" is considered to ensure consistency with previous censuses.

**Kiribati**
***Sources of data:*** Censuses of 1968, 1973, 1978, 1985, 1990, 1995, 2000, 2005 and 2015; UN Estimate for 1950.
***Definition:*** The island of South Tarawa.

**Kuwait**
***Sources of data:*** Censuses of 1957, 1965, 1970, 1975, 1980, 1985, 1995, 2005, 2010 and 2011; Estimate for 2000; UN Estimate for 1950.
***Definition:*** For 1980 and later, the urban agglomeration of Al-Kuwayt and localities with 10,000 inhabitants or more. For 1970 and 1975, Capital Governorate and localities of 10,000 inhabitants or more.

**Kyrgyzstan**
***Sources of data:*** Censuses of 1959, 1970, 1979, 1989, 1999 and 2009.
***Definition:*** Cities and urban-type localities, officially designated as such, usually according to criteria based on the number of inhabitants and predominance of non-agricultural workers and their families.

**Lao People's Democratic Republic**
***Sources of data:*** Censuses of 1958, 1966, 1973, 1985, 1995, 2005 and 2015.
***Definition:*** For 2005, areas within municipal vicinity with the centre of that municipality having 600 inhabitants or more, or at least 100 households. Further, the areas must have certain urban characteristics (roads, electricity, market function, tap water supply).

**Latvia**
***Sources of data:*** Censuses of 1959, 1970, 1979, 1989 and 2000; Estimates for 1981, 1986, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2001, 2002, 2003, 2004, 2005, 2006, 2009 and 2015.
***Definition:*** Cities and urban-type localities, officially designated as such, usually according to criteria based on the number of inhabitants and predominance of non-agricultural workers and their families.

**Lebanon**
***Sources of data:*** Estimate for 1988; Sample Survey of 1970; UN Estimates for 1950, 1958, 1998 and 2000.
***Definition:*** Localities with 5,000 inhabitants or more.

**Lesotho**
***Sources of data:*** Censuses of 1956, 1966, 1976, 1986, 1996 and 2006; Estimates for 1972, 2011 and 2017; UN Estimate for 1950.
***Definition:*** District headquarters and other settlements with rapid population growth and with facilities that tend to encourage people to engage in non-agricultural economic activities.

**Liberia**
***Sources of data:*** Censuses of 1962, 1974, 1984 and 2008; UN Estimates for 1991 and 1996.
***Definition:*** Localities with 2,000 inhabitants or more.

**Libya**
***Sources of data:*** Censuses of 1954, 1973, 1984 and 1995; Estimate for 1964.
***Definition:*** Municipalities of Tarabulus and Banghazi and urban parts of other municipalities.

**Liechtenstein**
***Sources of data:*** Censuses of 1950, 1955, 1960, 1970, 1980 and 1990; Estimates for 1995, 2000 and 2011.
***Definition:*** No official definition available. In the present publication, Vaduz municipality.

**Lithuania**
***Sources of data:*** Censuses of 1959, 1970, 1979, 1989, 2001 and 2011; Estimates for 1950, 2005, 2009 and 2015.
***Definition:*** Cities and urban-type localities, officially designated as such, according to criteria based on the number of inhabitants and the predominance of non-agricultural workers and their families.

**Luxembourg**
***Sources of data:*** Censuses of 1961, 1971, 1981, 1991, 2001 and 2011; Estimates for 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999 and 2000.
***Definition:*** Communes with 2,000 inhabitants or more.

**Madagascar**
***Sources of data:*** Censuses of 1975 and 1993; Estimates for 1950, 1970, 2004 and 2008; Sample Survey of 1966.
***Definition:*** Centres with 5,000 inhabitants or more.

**Malawi**
***Sources of data:*** Censuses of 1966, 1977, 1987, 1998 and 2008; Estimate for 1956.
***Definition:*** Townships, town planning areas and district centres.

**Malaysia**
***Sources of data:*** Censuses of 1957, 1991, 2000 and 2010; Estimates for 1970, 1980 and 2016.
***Definition:*** Gazetted areas with their adjoining built-up areas and with a combined population of 10,000 inhabitants or more. Built-up areas are areas contiguous to a gazetted area and at least 60 per cent of the population aged 10 years and over engaged in non-agricultural activities. Urban areas also have modern toilet facilities in housing units.

**Maldives**
***Sources of data:*** Censuses of 1965, 1967, 1970, 1977, 1985, 1990, 1995, 2000, 2006 and 2014.
***Definition:*** Male (capital) and other small settlements.

**Mali**
***Sources of data:*** Censuses of 1976, 1987, 1998 and 2009; Estimate for 1960.
***Definition:*** For 1998 and 2009, localities with 30,000 inhabitants or more. For 1987 and earlier, localities with 5,000 inhabitants or more and district centres.

**Malta**
***Sources of data:*** Censuses of 1957, 1967, 1985, 1995 and 2005; Estimate for 2016.
***Definition:*** No official definition available. In the present publication, localities with 2,500 inhabitants or more.

**Marshall Islands**
***Sources of data:*** Censuses of 1973, 1980, 1988, 1999 and 2011; UN Estimates for 1958 and 1967.
***Definition:*** The entire population of Majuro Atoll and the town of Ebeye Island on Kwajalein Atoll.

**Martinique**
***Sources of data:*** Censuses of 1954, 1961, 1982, 1999 and 2006; Estimate for 1967.
***Definition:*** For 1990 and 1999, total population of the Commune of Fort-de-France plus the agglomerations of other communes with 2,000 inhabitants or more.

**Mauritania**
***Sources of data:*** Censuses of 1964, 1977, 1988, 2000 and 2013.
***Definition:*** Localities with 5,000 inhabitants or more and the administrative centres of departments (*moughataa*).

**Mauritius**
***Sources of data:*** Censuses of 1952, 1972, 1983, 1990 and 2000; Estimate for 2015.
***Definition:*** Towns with proclaimed legal limits.

**Mayotte**
***Sources of data:*** Censuses of 1991, 2002, 2007 and 2012; UN Estimates for 1950, 1966 and 1980.
***Definition:*** No official definition available. In the present publication, localities with 5,000 inhabitants or more.

**Mexico**
***Sources of data:*** Censuses of 1950, 1960, 1970, 1980, 1990, 1995, 2000, 2005 and 2010.
***Definition:*** Localities with 2,500 inhabitants or more.

**Micronesia (Fed. States of)**
***Sources of data:*** Censuses of 1973, 1980, 1994, 2000 and 2010; UN Estimates for 1950 and 2005.
***Definition:*** Localities with 1,000 inhabitants or more.

**Monaco**
***Sources of data:*** Censuses of 1956, 1962, 1968, 1975, 1982, 1990, 2000, 2008 and 2016.
***Definition:*** Monaco (capital).

**Mongolia**
***Sources of data:*** Censuses of 1956, 1963, 1969, 1979, 1989, 2000 and 2010; Estimate for 2016; UN Estimate for 1950.
***Definition:*** Ulaanbaatar (capital) and district centres.

**Montenegro**
***Sources of data:*** Censuses of 1953, 1991, 2003 and 2011.
***Definition:*** Settlements officially designated as urban.

**Montserrat**
***Sources of data:*** Censuses of 1960, 1970, 1980, 1991 and 2011; UN Estimates for 1950, 1955, 1997, 1997 and 2001.
***Definition:*** Brades Estate/Plymouth (capital). Due to volcanic activity, Plymouth was abandoned in 1997. The government premises have been established at Brades Estate, in the Carr's Bay/Little Bay vicinity at the northwest end of Montserrat.

**Morocco**
***Sources of data:*** Censuses of 1960, 1971, 1982, 1994, 2004 and 2014; Estimate for 1952.
***Definition:*** Localities officially designated as urban according to administrative divisions and entities that satisfy the quantitative criteria (minimum population threshold) and qualitative criteria (density of equipment, predominance of non-agricultural activities, etc.)

**Mozambique**
***Sources of data:*** Censuses of 1980, 1997 and 2007; UN Estimates for 1950, 1960, 1970, 1990 and 2017.
***Definition:*** For 1997 and 2007: 23 cities and 68 towns/vilas. For 1980, 12 cities: Maputo, nine provincial capitals and the cities of Nacala-Porto and Chokwe. For 1950 to 1970, Conselho of Maputo and Beira. Estimates prior to 1980 were adjusted to take into account other urban settlements.

**Myanmar**
***Sources of data:*** Censuses of 1973, 1983 and 2014; Estimate for 1953; Sample Survey of 1957.
***Definition:*** No official definition available.

**Namibia**
***Sources of data:*** Censuses of 1991, 2001 and 2011; Estimate for 2015; UN Estimates for 1951, 1960, 1970 and 1981.
***Definition:*** The district headquarters and other settlements of rapid population growth with facilities that encourage people to engage in non-agricultural activities.

**Nauru**
***Sources of data:*** Censuses of 1977, 1983, 1992, 2002 and 2011.
***Definition:*** Entire population.

**Nepal**
***Sources of data:*** Censuses of 1953, 1961, 1971, 1981, 1991, 2001 and 2011.
***Definition:*** For 1999 and later, a complex set of rules varying by ecological zones and based on annual revenue, population size and infrastructure is used. For 1981 and 1991, localities (*panchayats*) with 9,000 inhabitants or more. For 1961 and 1971, localities (*panchayats*) with 5,000 inhabitants or more.

**Netherlands**
***Sources of data:*** Estimate for 2017; UN Estimates for 1950, 1960, 1970, 1980, 1990, 2000, 2005, 2009, 2010 and 2013.
***Definition:*** In the present publication, municipalities with 20,000 inhabitants or more.

**New Caledonia**
***Sources of data:*** Censuses of 1956, 1969, 1976, 1983, 1989, 1996, 2004, 2009 and 2014.
***Definition:*** Nouméa and communes of Païta, Nouvel Dumbéa and Mont-Dore.

**New Zealand**
***Sources of data:*** Censuses of 1951, 1956, 1961, 1966, 1971, 1976, 1981, 1986 and 1991; Estimates for 1996, 2001, 2006, 2011 and 2016.
***Definition:*** Cities, boroughs, town districts, townships and country towns with 1,000 inhabitants or more.

**Nicaragua**
***Sources of data:*** Censuses of 1950, 1963, 1971, 1995 and 2005; Estimate for 2016.
***Definition:*** Department, region and municipality headquarters, and population centres with 1,000 inhabitants or more, with some features such as: streets, electricity service, commercial and / or industrial establishments, etc.

**Niger**
***Sources of data:*** Censuses of 1977, 1988, 2001 and 2012; Estimates for 1956, 1962 and 1966.
***Definition:*** Localities serving as administrative centres, namely, the capital city and the administrative centres of regions and departments.

**Nigeria**
***Sources of data:*** Census of 1953; Estimates for 1960, 1970, 1980, 1990, 2000 and 2010.
***Definition:*** Towns with 20,000 inhabitants or more.

**Niue**
***Sources of data:*** Censuses of 1966, 1971, 1986, 1991, 1997, 2001, 2006 and 2011; UN Estimate for 1950.
***Definition:*** Alofi (capital).

**Northern Mariana Islands**
***Sources of data:*** Censuses of 2000 and 2010; UN Estimates for 1950, 1958, 1967, 1973, 1980, 1990 and 1995.
***Definition:*** For 1980 and later, Saipan Island.

**Norway**
***Sources of data:*** Censuses of 1950, 1960, 1970, 1980 and 1990; Estimates for 1995, 1997, 2000 and 2004; Registers of 2007, 2011 and 2017.
***Definition:*** Localities with 2,000 inhabitants or more.

**Oman**
***Sources of data:*** Censuses of 1993, 2003 and 2010; UN Estimates for 1950, 1960 and 2016.
***Definition:*** The Governorate of Muscat, all Wilayat(s) centres and every named and permanent human settlement with 2,500 inhabitants or more and with at least three of the following basic services: preparatory or secondary school, public electricity network, health centre and telephone services.

**Pakistan**
***Sources of data:*** Censuses of 1951, 1961, 1972, 1981, 1998 and 2017.
***Definition:*** Places with municipal corporation, town committee or cantonment.

**Palau**
***Sources of data:*** Censuses of 1973, 1980, 1986, 1990, 1995 and 2015; UN Estimate for 2003.
***Definition:*** Koror Island.

**Panama**
***Sources of data:*** Censuses of 1950, 1960, 1970, 1980, 1990 and 2000; Estimate for 2010.
***Definition:*** Localities with 1,500 inhabitants or more, with all or most of the following urban characteristics: electricity, water-supply and sewerage systems, paved roads and access to commercial establishments, secondary schools and social and recreational centres. Some places with most of the aforementioned features were defined as urban even if they had fewer than 1,500 inhabitants.

**Papua New Guinea**
***Sources of data:*** Censuses of 1966, 1971, 1980, 1990, 2000 and 2011; UN Estimate for 1950.

***Definition:*** Centres with 500 inhabitants or more, excluding separately located schools, hospitals, missions, plantations, rural settlements and rural villages regardless of population size.

**Paraguay**
***Sources of data:*** Censuses of 1950, 1962, 1972, 1982, 1992, 2002 and 2012; Estimate for 2017.
***Definition:*** Administrative centres of the official districts.

**Peru**
***Sources of data:*** Censuses of 1961, 1972, 1981, 1993 and 2007; Estimate for 2017.
***Definition:*** Populated centres with 100 dwellings or more grouped contiguously and administrative centres of districts.

**Philippines**
***Sources of data:*** Censuses of 1960, 1970, 1975, 1980, 1990, 2010 and 2015.
***Definition:*** Cities and municipalities with at least 1,000 inhabitants per square kilometre; administrative centres, barrios with 2,000 inhabitants or more, and barrios with 1,000 inhabitants or more which are contiguous to the administrative centre, in all cities and municipalities with at least 500 inhabitants per square kilometre; and all other administrative centres with 2,500 inhabitants or more.

**Poland**
***Sources of data:*** Censuses of 1950, 1960, 1970, 1978, 1988, 2002 and 2011; Estimate for 2015.
***Definition:*** Towns (urban *gminas*) and cities with *powiat*status (county, district or prefecture).

**Portugal**
***Sources of data:*** Censuses of 1950, 1960, 1981, 1991, 2001 and 2011.
***Definition:*** Agglomerations of 2,000 inhabitants or more.

**Puerto Rico**
***Sources of data:*** Censuses of 1950, 1960, 1970, 1980, 1990, 2000 and 2010.
***Definition:*** Densely settled territory 2,500 inhabitants or more. A change in the definition for the 2000 census from place-based to density-based affects the comparability of estimates before and after this date.

**Qatar**
***Sources of data:*** Censuses of 1986, 1997, 2004, 2010 and 2015; UN Estimates for 1956, 1963, 1971 and 1979.
***Definition:*** Localities with 5,000 inhabitants or more.

**Republic of Korea**
***Sources of data:*** Censuses of 1955, 1960, 1966, 1970, 1975, 1980, 1985, 1990, 1995, 2000, 2005, 2010 and 2015.
***Definition:*** Administrative divisions for urban areas (dong).

**Republic of Moldova**
***Sources of data:*** Censuses of 1959, 1970, 1979 and 1989; Estimates for 1996, 2005 and 2014; UN Estimate for 1950.
***Definition:*** Cities and urban-type localities, officially designated as such, usually according to criteria based on the number of inhabitants and the predominance of non-agricultural workers and their families.

**Réunion**
***Sources of data:*** Censuses of 1954, 1967, 1974, 1982, 1990, 1999 and 2010.
***Definition:*** Communes with 2,000 inhabitants or more living in houses separated by at most 200 metres; or communes in which the majority of the population is part of a multi-communal agglomeration.

**Romania**
***Sources of data:*** Censuses of 1956, 1966, 1977, 1992, 2002 and 2011; Estimate for 2014.
***Definition:*** Municipalities and towns with certain urban socio-economic characteristics.

**Russian Federation**
***Sources of data:*** Censuses of 1959, 1970, 1979, 1989, 2002 and 2010.
***Definition:*** Cities and urban-type localities, officially designated as such, usually according to criteria based on the number of inhabitants and the predominance of non-agricultural workers and their families.

**Rwanda**
***Sources of data:*** Censuses of 1970, 1978, 1991, 2002 and 2012; UN Estimates for 1960 and 1996.
***Definition:*** "Kigali (capital), administrative centres of prefectures and important agglomerations with their surroundings. "

**Saint Helena**
***Sources of data:*** Censuses of 1956, 1966, 1976, 1987, 1998 and 2008.
***Definition:*** Jamestown (capital) and Half Tree Hollow.

**Saint Kitts and Nevis**
***Sources of data:*** Censuses of 1960, 1970, 1980, 1991, 2001 and 2011.
***Definition:*** Basseterre (capital) and Charlestown.

**Saint Lucia**
***Sources of data:*** Censuses of 1991, 2001 and 2010; UN Estimate for 2012.
***Definition:*** No official definition available. In the present publication, the urban agglomeration of the city of Castries, its suburbs and three towns (Gros Islet, Soufrière, and Vieux Fort).

**Saint Pierre and Miquelon**
***Sources of data:*** Censuses of 1962, 1982, 1990, 1999 and 2006; Estimates for 1950, 2010 and 2015.
***Definition:*** Saint-Pierre (capital).

**Saint Vincent and the Grenadines**
***Sources of data:*** Censuses of 1960 and 2001; Estimate for 1991.
***Definition:*** No official definition available.

**Samoa**
***Sources of data:*** Censuses of 1951, 1956, 1961, 1966, 1971, 1976, 1981, 1991, 2001, 2006, 2011 and 2016.
***Definition:*** Urban area of Apia (capital), comprising the districts of Vaimauga West and Faleata East.

**San Marino**
***Sources of data:*** Census of 1976; Estimates for 1987, 1992 and 2017; UN Estimates for 1950, 1960, 1970, 2001 and 2003.
***Definition:*** Municipalities with 1,000 inhabitants or more.

**Sao Tome and Principe**
***Sources of data:*** Censuses of 1950, 1960, 1970, 1981, 1991, 2001 and 2012.
***Definition:*** For 1991 and later, the district of Água Grande (São Tomé and Pantufo) and 6 other small settlements.

**Saudi Arabia**
***Sources of data:*** Censuses of 1974, 2004 and 2010; Estimates for 1962 and 1986; UN Estimates for 1950 and 1992.
***Definition:*** Cities with 5,000 inhabitants or more.

**Senegal**
***Sources of data:*** Censuses of 1976, 1988, 2002 and 2013; Estimates for 1960 and 1970.
***Definition:*** Agglomerations of 10,000 inhabitants or more.

**Serbia**
***Sources of data:*** Censuses of 1953, 1961, 1971, 1981, 1991 and 2011; UN Estimate for 2016.
***Definition:*** Settlements officially designated as urban. The settlement of Belgrade and the settlement of Nis spread over the territory of several municipalities.

**Seychelles**
***Sources of data:*** Estimates for 1960 and 1971; UN Estimates for 1977 and 1987.
***Definition:*** No official definition available. In the present publication, prior to 1971, Victoria city proper (capital). For 1971 and later, greater Victoria agglomeration plus districts with at least 1,500 inhabitants per inhabited square kilometre in 2002 (Cascades, Pointe Larue, Anse aux Pins).

**Sierra Leone**
***Sources of data:*** Censuses of 1963, 1974, 1985, 2004 and 2015.
***Definition:*** Towns with 2,000 inhabitants or more.

**Singapore**
***Sources of data:*** Censuses of 1957, 1970, 1980, 1990, 2000 and 2010; Estimates for 2004 and 2016.
***Definition:*** Entire population.

**Sint Maarten (Dutch part)**
***Sources of data:*** Censuses of 1960, 1972, 1981, 1992, 2001 and 2011.
***Definition:*** Entire population.

**Slovakia**
***Sources of data:*** Censuses of 1950, 1961, 1970, 1980, 1991, 2001 and 2011; Estimates for 2009 and 2014.
***Definition:*** Cities with 5,000 inhabitants or more.

**Slovenia**
***Sources of data:*** Censuses of 1953, 1961, 1971, 1981, 1991 and 2002; Register of 2015.
***Definition:*** Settlements with 3,000 inhabitants or more; settlements with between 2,000 and 2,999 inhabitants and a surplus of workplaces; settlements that are seats of municipalities and have 1,400 inhabitants or more and a surplus of workplaces; suburban settlements that have fewer inhabitants but are spatially and functionally integrated with the city.

**Solomon Islands**
***Sources of data:*** Censuses of 1970, 1976, 1986, 1999 and 2009; UN Estimates for 1950 and 1959.
***Definition:*** Places with 1,000 inhabitants or more.

**Somalia**
***Sources of data:*** Census of 1975; Estimates for 1953 and 1963; Sample Survey of 2002 and 2014; UN Estimates for 1987, 2007, 2007 and 2011.
***Definition:*** District capitals and towns or villages with 1,500 inhabitants or more.

**South Africa**
***Sources of data:*** Censuses of 1951, 1960, 1970, 1996, 2001 and 2011; UN Estimates for 1980, 1985 and 1991.
***Definition:*** A classification based on dominant settlement type and land use. Cities, towns, townships, suburbs, etc., are typical urban settlements. Enumeration areas comprising informal settlements, hostels, institutions, industrial and recreational areas, and smallholdings within or adjacent to any formal urban settlement are classified as urban. The 1996 estimate was adjusted to comply with the 2001 census definition. Estimates for 1980, 1985 and 1991 were adjusted to take into account the populations of Transkei, Bophuthatswana, Venda and Ciskei.

**South Sudan**
***Sources of data:*** Censuses of 1956, 1983, 1993 and 2008.
***Definition:*** Localities of administrative and/or commercial importance or with 5,000 inhabitants or more.

**Spain**
***Sources of data:*** Censuses of 1950, 1960, 1970, 1981, 1991, 2001 and 2011.
***Definition:*** Municipalities (*municipios*) with 10,000 inhabitants or more.

**Sri Lanka**
***Sources of data:*** Censuses of 1953 and 2012; UN Estimates for 1963 and 1981.
***Definition:*** Municipalities and urban councils.

**State of Palestine**
***Sources of data:*** Censuses of 1997 and 2007; Estimates for 1950, 1961 and 1975.
***Definition:*** Localities with 10,000 inhabitants or more; governorate and district centres regardless of their size; and localities with 4,000 to 9,999 inhabitants with at least four of the following elements: public electricity network, public water network, post office, health centre with a full-time physician and a school offering a general secondary education certificate.

**Sudan**
***Sources of data:*** Censuses of 1956, 1973, 1983, 1993 and 2008.
***Definition:*** Localities of administrative and/or commercial importance or with 5,000 inhabitants or more.

**Suriname**
***Sources of data:*** Censuses of 1950, 1964, 1971, 1980, 2004 and 2012.
***Definition:*** The district of Paramaribo (capital) and Wanica district.

**Sweden**
***Sources of data:*** Censuses of 1950, 1960, 1965, 1970, 1975, 1980, 1985 and 1990; Estimates for 1995 and 2000; Registers of 2005, 2010 and 2016.
***Definition:*** Built-up areas with 200 inhabitants or more and where houses are at most 200 metres apart.

**Switzerland**
***Sources of data:*** Censuses of 1950, 1960, 1970, 1980, 1990 and 2000; Estimates for 2010 and 2016.
***Definition:*** Communes with 10,000 inhabitants or more, including suburbs, and urban agglomerations with contiguous built-up area with 20,000 inhabitants or more.

**Syrian Arab Republic**
***Sources of data:*** Censuses of 1960, 1970, 1981, 1994 and 2004; Estimates for 1950 and 2010; UN Estimates for 2014 and 2017.
***Definition:*** Cities, *Mohafaza* centres and *Mantika* centres, and communities of 20,000 inhabitants or more. Considering the situation in the country, estimates for recent years should be used with caution as they are not based on solid evidence.

**Tajikistan**
***Sources of data:*** Censuses of 1959, 1970, 1979, 1989, 2000 and 2010; UN Estimate for 1950.
***Definition:*** Cities and urban-type localities, officially designated as such, usually according to criteria based on the number of inhabitants and the predominance of non-agricultural workers and their families.

**TFYR Macedonia**
***Sources of data:*** Censuses of 1953, 1961, 1971, 1981, 1991, 1994 and 2003.
***Definition:*** Settlements officially designated as urban and other settlements integrated into urban settlements.

**Thailand**
***Sources of data:*** Censuses of 1960, 1970, 1980, 1990, 2000 and 2010; Estimate for 2017.
***Definition:*** Municipalities. In 1999, 981 districts were reclassified as *Tambon* municipalities and estimates were adjusted retrospectively.

**Timor-Leste**
***Sources of data:*** Censuses of 1950, 1960, 2004 and 2015; UN Estimate for 1990.
***Definition:*** Dili (capital) and other small settlements (*sucos*) designated as urban. For 2004, *sucos* classified as urban based on the number of inhabitants in non-agricultural activities, the existence of some amenities/facilities, and some additional requirements.

**Togo**
***Sources of data:*** Censuses of 1959, 1970, 1981 and 2010; Estimate for 2015.
***Definition:*** For 1981 and later, 21 administrative centres of prefectures. For 1970 and earlier, seven urban communes.

**Tokelau**
***Sources of data:*** Censuses of 1982, 1986, 1991, 1996, 2001, 2006 and 2011.
***Definition:*** No urban population.

**Tonga**
***Sources of data:*** Censuses of 1956, 1966, 1976, 1986, 1996, 2006, 2011 and 2016; Estimate for 1950.
***Definition:*** Nuku'alofa (capital)

**Trinidad and Tobago**
***Sources of data:*** Censuses of 1980, 2000 and 2011.
***Definition:*** Estimated based on the population of the City of Port of Spain, City of San Fernando, Borough of Arima, Borough of Chaguanas, Borough of Point Fortin, Diego Martin, San Juan/Laventille, Tunapuna/Piarco, St Andrew.

**Tunisia**
***Sources of data:*** Censuses of 1956, 1966, 1975, 1984, 1994, 2004 and 2014.
***Definition:*** Communes with 5,000 inhabitants or more.

**Turkey**
***Sources of data:*** Censuses of 1950, 1955, 1965, 1970, 1975, 1980, 1985, 1990, 2000 and 2011; Estimate for 1960.
***Definition:*** Localities within the municipality limits of administrative centres of provinces and districts.

**Turkmenistan**
***Sources of data:*** Censuses of 1959, 1970, 1979, 1989 and 1995; Estimate for 2004.
***Definition:*** Cities and urban-type localities, officially designated as such, usually according to criteria based on the number of inhabitants and the predominance of non-agricultural workers and their families.

**Turks and Caicos Islands**
***Sources of data:*** Censuses of 1960, 1970, 1980, 1990, 2001 and 2012; UN Estimate for 1950.
***Definition:*** The islands of Grand Turk and Providenciales.

**Tuvalu**
***Sources of data:*** Censuses of 1979, 1985, 1991, 2002 and 2012.
***Definition:*** Island of Funafuti.

**Uganda**
***Sources of data:*** Censuses of 1959, 1969, 1980, 1991 and 2014.
***Definition:*** For 2002 and later, gazetted cities, municipalities and towns with 2,000 inhabitants or more. For 1991 and earlier, cities, municipalities, towns, town boards and all trading centres with 1,000 inhabitants or more.

**Ukraine**
***Sources of data:*** Censuses of 1959, 1970, 1979, 1989 and 2001; Estimates for 1950, 1964, 1974, 1984, 2004, 2005, 2009 and 2017.
***Definition:*** Cities and urban-type localities, officially designated as such, usually according to criteria based on the number of inhabitants and predominance of non-agricultural workers and their families.

**United Arab Emirates**
***Sources of data:*** Censuses of 1975, 1980, 1985, 1995 and 2005; UN Estimates for 1950, 1960 and 1968.
***Definition:*** For 1975 and later, nine cities or towns.

**United Kingdom**
***Sources of data:*** Censuses of 1951, 1961, 1971, 1981, 1991, 2001 and 2011.
***Definition:*** Settlements with 10,000 inhabitants or more. For 1971 and earlier, administrative boundaries were used.

**United Republic of Tanzania**
***Sources of data:*** Censuses of 1957, 1967, 1978, 1988, 2002 and 2012.
***Definition:*** For 1978 and later, all regional and district headquarters, as well as all wards with urban characteristics (i.e., exceeding certain minimal level of size-density criteria and/or with many of their inhabitants in non-agricultural occupations). No specific numerical values of size and density are identified, and wards are defined as urban based on the decision of the District/Regional Census Committees. For 1957 and 1967, 16 gazetted townships.

**United States of America**
***Sources of data:*** Censuses of 1950, 1960, 1970, 1980, 1990, 2000 and 2010.
***Definition:*** Densely settled territory that meets minimum population density requirements and with 2,500 inhabitants or more. A change in the definition for the 2000 census from place-based to density-based affects the comparability of estimates before and after this date.

**United States Virgin Islands**
***Sources of data:*** Censuses of 1950, 1960, 2000 and 2010.
***Definition:*** For 2000 and 2010, densely settled territory that meets minimum population density requirements and with 2,500 inhabitants or more. For 1950 and 1960, estimates were adjusted for consistency with the new definition.

**Uruguay**
***Sources of data:*** Censuses of 1963, 1975, 1985, 1996 and 2011; Estimate for 2017.
***Definition:*** Cities officially designated as such.

**Uzbekistan**
***Sources of data:*** Censuses of 1959, 1970, 1979 and 1989; Estimates for 2011 and 2017.
***Definition:*** Cities and urban-type localities, officially designated as such, usually according to criteria based on number of inhabitants and the predominance of non-agricultural workers and their families.

**Vanuatu**
***Sources of data:*** Censuses of 1967, 1979, 1989, 1999, 2009 and 2016.
***Definition:*** Port-Vila (capital) and Luganville.

**Venezuela (Bolivarian Republic of)**
***Sources of data:*** Censuses of 1950, 1961, 1971, 1981 and 1990; Estimates for 2001, 2011 and 2016.
***Definition:*** Places with 2,500 inhabitants or more.

**Viet Nam**
***Sources of data:*** Censuses of 1960, 1979, 1989, 1999 and 2009; Estimates for 1970 and 2016.
***Definition:*** Places with 4,000 inhabitants or more.

**Wallis and Futuna Islands**
***Sources of data:*** Censuses of 1969, 1976, 1983, 1990, 1996 and 2003.
***Definition:*** No urban population.

**Western Sahara**
***Sources of data:*** Censuses of 1970, 1982 and 1994; UN Estimates for 1950, 1960 and 2014.
***Definition:*** Localities defined as urban according to administrative divisions, plus any entity having satisfied the quantitative criteria (minimum population threshold) and qualitative criteria (density of equipment, predominance of non-agricultural activities, etc.).

**Yemen**
***Sources of data:*** Censuses of 1986, 1994 and 2004; Estimates for 1950, 1960 and 1970.
***Definition:*** Capitals of 17 governorates and other towns.

**Zambia**
***Sources of data:*** Censuses of 1963, 1969, 1980, 1990, 2000 and 2010; UN Estimate for 1950.
***Definition:*** Localities with 5,000 inhabitants or more and with a majority of the labour force not in agricultural activities.

**Zimbabwe**
***Sources of data:*** Censuses of 1951, 1962, 1969, 1982, 1992, 2002 and 2012; Estimate for 1974.
***Definition:*** Places officially designated as urban, as well as places with 2,500 inhabitants or more whose population resides in a compact settlement pattern and where more than 50 per cent of the employed persons are engaged in non-agricultural occupations.

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## REFERENCES

Angel, S., and others (2011a). The dimensions of global urban expansion: Estimates and projections for all countries, 2000-2050. *Progress in Planning,* vol. 75, pp. 53-107.

Angel, S., and others (2011b). *Making Room for a Planet of Cities(Policy Focus Reports)*. Cambridge, MA: Lincoln Institute of Land Policy.

Bairoch, P. 1988. *Cities and Economic Development from the Dawn of History to the Present*. Chicago: University of Chicago Press.

Balk, D., and others (2009). Mapping Urban Settlements and the Risks of Climate Change in Africa, Asia and South America. In *Population Dynamics and Climate Change,* pp. 80-103, J. M. Guzmán, and others, eds. New York: UNFPA; London: IIED.

Batty, Michael (2008). The size, scale, and shape of cities. *Science,* vol. 319. No. 5864 (February), pp. 769-771.

Besussi, Elena and others (2010). The Structure and Form of Urban Settlements. In *Remote Sensing of Urban and Suburban Areas*, T. Rashed, and C. Jurgens, eds. New York: Springer.

Bracken, Gregory (ed) (2012). *Aspects of Urbanization in China. Shanghai, Hong Kong, Guangzhou*, Amsterdam: IIAS/Amsterdam University Press.

Champion, A. G. (ed). (1989). *Counter urbanization: The Changing Pace and Nature of Population Deconcentration.* London: Edward Arnold.

Chan, K.W. (2007). Misconceptions and complexities in the study of China's cities: Definitions, statistics, and implications. *Eurasian Geography and Economics*, vol. 48, No. 4, pp. 383-412.

Cohen, Barney (2006). Urbanization in developing countries: Current trends, future projections, and key challenges for sustainability. *Technology in Science,* vol. 28, pp. 63-80.

de Vries, Jan (1990). Problems in the measurement, description, and analysis of historical urbanization. In *Urbanization in History*, A. van der Woude, A. Hayami, and J. de Vries, eds. Oxford: Clarendon Press.

Dodman, David (2009). Blaming cities for climate change? An Analysis of urban greenhouse gas emissions inventories. *Environment and Urbanization,* vol. 21, No. 1, pp. 185-201.

Dyson, Tim (2011). The role of the demographic transition in the process of urbanization. *Population and Development Review,* vol. 37, (Supplement), pp. 34-54.

European Commission, Directorate General for Regional Policy (2011). *Cities of tomorrow - Challenges, visions, ways forward*. Luxembourg: Publications Office of the European Union.

Fay, Marianne, and Charlotte Opal (1999). Urbanization without growth: A not-so-uncommon phenomenon. World Bank Policy Research Working Paper No. 21412. Washington, DC.: World Bank.

Fink, G., I. Günther and K. Hill (2014). Slum residence and child health in developing countries. *Demography,* vol. 51, pp. 1175-1197.

Foresight (2011). *Migration and Global Environmental Change. Final Project Report*. London: The Government Office for Science.

Gaigbe-Togbe, Victor (2015). The impact of socio-economic inequalities on early-childhood survival. Results from the Demographic and Health Surveys. Population Division Technical Paper 2015/1. New York: United Nations.

Grübler, Arnulf, and David Fisk (eds) (2013). *Energizing Sustainable Cities: Assessing Urban Energy*. Abingdon, United Kingdom: Routledge.

Gu, Danan, and others (2015). Risks of Exposure and Vulnerability to Natural Disasters at the City Level: A Global Overview. Population Division Technical Paper 2015/2. New York: United Nations.

Hoornweg, Daniel, Lorraine Sugar and Claudia Lorena Trejos Gomez (2011). Cities and greenhouse gas emissions: moving forward. *Environment and Urbanization,* vol. 23, No. 1, pp. 207-227.

Kim, S. and Law, Marc T. (2012). History, Institutions, and Cities: A View from The Americas, *Journal of Regional Science*, vol. 52, No. 1, pp. 10–39.

Lerch, Matthias (2017). International migration and city growth. Population Division Technical Paper 2017/10. New York: United Nations.

McKinsey Global Institute (2014). *A blueprint for addressing the global affordable housing challenge*. McKinsey & Company: McKinsey Global Institute.

Montgomery, R. Mark, and others, eds. (2004). *Cities Transformed: Demographic Change and its Implications in the Developing World*. London: Earthscan.

Norman, J., H. MacLean and C. Kennedy (2006). Comparing high and low residential density: life-cycle analysis of energy use and greenhouse gas emissions. *Journal of Urban Planning and Development,* vol. 132, No. 1, pp.10-21.

Organisation for Economic Co-operation and Development (OECD) (2012). *Redefining "Urban": A New Way to Measure Metropolitan Areas*, OECD Publishing. Available at: https://dx.doi.org/10.1787 /9789264174108-en.

Pejaranonda, C., S. Santipaporn, and P. Guest (1995). Rural-Urban migration in Thailand. In *Trends, Patterns and Implications of Rural-Urban Migration in India, Nepal and Thailand*. Asian Population Studies Series No. 138, ST/ESCAP/1572. New York: United Nations.

Satterthwaite, David (2010). *Urban Myths and the Mis-use of Data that Underpin Them*. *UNU-WIDER Working Paper*, No. 2010/28. Helsinki: World Institute for Development Economics Research.

_____ (2011): How urban societies can adapt to resource shortage and climate change. Philosophical Transactions of the Royal Society A 369: 1762-1783.

Schlappa, Hans and William J. V. Neill (2013). *From crisis to choice: re-imagining the future in shrinking cities*, URBACT Secretariat, Paris.

Seto K, and others. (2014). Human settlements, infrastructure and spatial planning. In *Climate Change 2014: Mitigation of Climate Change, Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC, Geneva)*, Edenhofer O, et al., eds. Cambridge University Press, Cambridge UK/New York: pp 923–1000.

Seto, K., B. Guneralp and L.R. Hutyra (2012). Global forecasts of urban expansion to 2030 and direct impacts on biodiversity and carbon pools. *PNAS,* vol. 109, No. 40, pp. 16083-16088.

Shen, J. (2005). Counting urban population in Chinese censuses 1953–2000: changing definitions, problems and solutions. *Population, Space and Place*, vol. 11, No. 5, pp. 381-400.

Short, John Rennie and Luis Mauricio Pinet-Peralta (2009). Urban Primacy: Reopening the Debate, *Geography Compass*, vol 3, No. 3, pp. 1245–1266.

Stecklov, G. (2008). *The Components of Urban Growth in Developing Countries*. Unpublished manuscript.

The World Bank (2016). *Shockwave. Managing the impacts of climate change on poverty*. Washington, DC.: World Bank.

_____ (2018). *Groundswell. Preparing for internal climate migration*. Washington, DC.: World Bank.

United Nations (1974). *Methods for the Projection of Urban and Rural Population*. Population Studies, No. 55. United Nations publication, Sales No. E.74.XIII.3.

_____ (1980). *Patterns of Urban and Rural Population Growth*. United Nations publication, Sales No. E.79XIII.9.

_____ (2013). *World Economic and Social Survey 2013: Sustainable Development Challenges* (E/2013/50/Rev. 1, ST/ESA/344).

_____ (2014b). *The Millennium Development Goals Report 2014*.

_____ (2017). *World Population Prospects: The 2017 Revision, Volume I: Comprehensive Tables* (ST/ESA/SER.A/399).

_____ (2018a). *World Urbanization Prospects: The 2018 Revision, Methodology*, Working Paper No. ESA/P/WP.252.

_____ (2018b). *The Sustainable Development Goals Report*.

_____ (2018c). *The World's Cities in 2018* (ST/ESA/SER.A/417). Available at: www.un.org/en/development/desa/population/publications/pdf/urbanization/the_worlds_cities_in_2018_data_booklet.pdf.

_____ (2019). *World Urbanization Prospects 2018: Highlights* (ST/ESA/SER.A/421). Available at: https://population.un.org/wup/Publications/Files/WUP2018-Highlights.pdf.

United Nations Economic Commission for Latin America and the Caribbean (UN-ECLAC) (2011). *Proceedings of the Expert Group Meeting on Population, Territory and Sustainable Development* (Población, territorio y desarrollo sostenible), Santiago de Chile, 16-17 August 2011.

United Nations Human Settlements Programme (UN-Habitat) (2008). *State of the World's Cities Report 2008/2009: Harmonious Cities*.

_____ (2010). *State of the World's Cities Report 2010/2011: Bridging the Urban Divide.*

_____ (2011). *Hot cities: Battle-ground for climate change.* UN-Habitat, Nairobi.

_____ (2012). *State of the World's Cities Report 2012/2013: Prosperity of Cities*.

_____ (2013). *The Economics of Urban Form: A Literature Review*.

_____ (2016). *Urbanization and Development, Emerging Futures, World Cities Report 2016*.

_____ (2017). *New Urban Agenda*, A/RES/71/256.

United Nations University, Institute for Environment and Human Security (2012). *Where the rain falls: climate change, food and livelihood security, and migration*. Available at: http://i.unu.edu/media/unu.edu/publication/31459/WTRF_Global_Policy_Report_smaller.pdf.

Zhang, L. and Zhao, S. X. B. (1998). Re-examining China's "urban" concept and the level of urbanization. *The China Quarterly*, vol. 154, pp. 330–381.

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