

World Urbanization Prospects The 2011 Revision

Highlights



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Department of Economic and Social Affairs
Population Division

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DESA

The Department of Economic and Social Affairs of the United Nations Secretariat is a vital interface between global policies in the economic, social and environmental spheres and national action. The Department works in three main interlinked areas: (i) it compiles, generates and analyses a wide range of economic, social and environmental data and information on which States Members of the United Nations draw to review common problems and take stock of policy options; (ii) it facilitates the negotiations of Member States in many intergovernmental bodies on joint courses of action to address ongoing or emerging global challenges; and (iii) it advises interested Governments on the ways and means of translating policy frameworks developed in United Nations conferences and summits into programmes at the country level and, through technical assistance, helps build national capacities.

Note

The designations employed in this report and the material presented in it 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.

Symbols of United Nations documents are composed of capital letters combined with figures.

This publication has been issued without formal editing.

PREFACE

The Population Division of the Department of Economic and Social Affairs at the United Nations Secretariat is responsible for providing the international community with up-to-date and scientifically objective information on population and development. The Population Division provides guidance to the United Nations General Assembly, Economic and Social Council, and the Commission on Population and Development on population and development issues and undertakes regular studies on population levels and trends, population estimates and projections, population policies, and population and development inter-relationships.

The Population Division's work encompasses the following substantive areas: the study of mortality, fertility, international and internal migration, including their levels and trends as well as their causes and consequences; estimates and projections of the distribution of the population between urban and rural areas and in cities; estimates and projections of population size, age and sex structure, and demographic indicators for all countries of the world; the documentation and analysis of population and development policies at the national and international levels; and the study of the relationship between socio-economic development and population change.

This report presents the highlights of the *2011 Revision of World Urbanization Prospects* including the official United Nations estimates and projections of urban and rural populations for major areas, regions and countries of the world and of all urban agglomerations with 750,000 inhabitants or more in 2011. The data in this *Revision* are consistent with the total populations estimated and projected according to the medium variant of the *2010 Revision* of the United Nations global population estimates and projections, published in *World Population Prospects: The 2010 Revision*¹. This *Revision* updates and supersedes previous estimates and projections published by the United Nations.

Wall charts entitled *Urban Agglomerations 2011* and *Urban and Rural Areas 2011* will also be issued in 2012. A CD-ROM containing major results of the *2011 Revision* can be purchased from the Population Division. A description of the databases and an order form are given on pages 27-33 of this publication and are also posted on the Population Division's web site at www.unpopulation.org. All basic data and a complete list of data sources can be retrieved from an on-line database at the same web site.

This publication may also be accessed on the website of the Population Division at www.unpopulation.org. For further information about the *2011 Revision*, please contact the office of Mr. Gerhard Heilig, Chief, Population Estimates and Projections Section (heilig@un.org), Population Division, DESA, United Nations, New York, NY 10017, USA; tel.: (1 212) 963-4531, fax: (1 212) 963-2147.

¹*World Population Prospects: The 2010 Revision, Volume I, Comprehensive Tables* (United Nations publication, ST/ESA/SER.A/313) and Volume II: *Demographic Profiles*. (United Nations publication, ST/ESA/SER.A/317). <http://esa.un.org/unpd/wpp/Documentation/publications.htm>

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EXPLANATORY NOTES

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

- Two dots (..) indicate that the item is not applicable.
- Three dots (...) indicate that data are not available or are not separately reported.
- An em dash (—) indicates that the value is zero (magnitude zero).
- 0 or 0.0 indicates that the magnitude is not zero, but less than half of the unit employed.
- A minus sign (-) before a figure indicates a decrease.
- A full stop (.) is used to indicate decimals.
- Years given start on 1 July.
- Use of a hyphen (-) between years, for example, 1995-2000, signifies the full period involved, from 1 July of the beginning year to 30 June of the end year.

Decimals and percentages in tables may not add to the totals presented because of rounding.

References to countries, territories, areas and urban locations

The designations employed 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 of its authorities, or concerning the delimitation of its frontiers or boundaries.

The designations “more developed regions” and “less developed regions” are used for statistical convenience and do not necessarily 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.

The more developed regions comprise all regions of Europe plus Northern America, Australia/New Zealand and Japan. The term “developed countries” is used to designate countries in the more developed regions.

The less developed regions comprise all regions of Africa, Asia (excluding Japan) and Latin America and the Caribbean, as well as Melanesia, Micronesia and Polynesia. The term “developing countries” is used to designate countries in the less developed regions.

The 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) include 49 countries in 2012: 34 in Africa, 9 in Asia, 5 in Oceania and one in Latin America and the Caribbean.

Country names and the composition of geographical areas follow those presented in “Standard country or area codes for statistical use” (ST/ESA/STAT/SER.M/49/Rev.3), 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. For cities with names in more than one language, different names are separated by a hyphen. If the country uses non-Latin scripts, a transliteration of the original spelling into Latin script is used. 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 more appropriate term “rate of change”, which is neutral in respect to either growth or decline.

The following abbreviations are used in this publication:

- DESA Department of Economic and Social Affairs
- SAR Special Administrative Region
- HDI Human Development Index

CLASSIFICATION OF COUNTRIES BY MAJOR AREA AND REGION OF THE WORLD

Africa

<i>Eastern Africa</i>	<i>Middle Africa</i>	<i>Northern Africa</i>	<i>Western Africa</i>
Burundi	Angola	Algeria	Benin
Comoros	Cameroon	Egypt	Burkina Faso
Djibouti	Central African Republic	Libyan Arab Jamahiriya	Cape Verde
Eritrea	Chad	Morocco	Côte d'Ivoire
Ethiopia	Congo	Sudan	Gambia
Kenya	Democratic Republic of the Congo	Tunisia	Ghana
Madagascar		Western Sahara	Guinea
Malawi	Equatorial Guinea		Guinea-Bissau
Mauritius ²	Gabon	<i>Southern Africa</i>	Liberia
Mayotte	São Tomé and Príncipe		Mali
Mozambique		Botswana	Mauritania
Réunion		Lesotho	Niger
Rwanda		Namibia	Nigeria
Seychelles*		South Africa	Saint Helena ^{3*}
Somalia		Swaziland	Senegal
South Sudan			Sierra Leone
Uganda			Togo
United Republic of Tanzania ⁴			
Zambia			
Zimbabwe			

²Including Agalega, Rodrigues, and Saint Brandon.

³Including Ascension, and Tristan da Cunha.

⁴Including Zanzibar.

CLASSIFICATION OF COUNTRIES (*continued*)

Asia

<i>Eastern Asia</i> ⁵	<i>South-Central Asia</i> ⁶	<i>South-Eastern Asia</i>	<i>Western Asia</i>
	<i>Central Asia</i>		
China ⁷	Kazakhstan	Brunei Darussalam	Armenia
China, Hong Kong SAR ⁸	Kyrgyzstan	Cambodia	Azerbaijan ⁹
China, Macao SAR ¹⁰	Tajikistan	Indonesia	Bahrain
Democratic People's Republic of Korea	Turkmenistan	Lao People's Democratic Republic	Cyprus ¹¹
Japan	Uzbekistan	Malaysia ¹³	Georgia ¹²
Mongolia	<i>Southern Asia</i>	Myanmar	Iraq
Republic of Korea		Philippines	Israel
	Afghanistan	Singapore	Jordan
	Bangladesh	Thailand	Kuwait
	Bhutan	Timor-Leste	Lebanon
	India	Viet Nam	Occupied Palestinian Territory ¹⁴
	Iran (Islamic Republic of)		Oman
	Maldives ¹⁵		Qatar
	Nepal		Saudi Arabia
	Pakistan		Syrian Arab Republic
	Sri Lanka		Turkey
			United Arab Emirates
			Yemen

5 Includes other non-specified areas

6 The regions Southern Asia and Central Asia are combined into South-Central Asia.

7 For statistical purposes, the data for China do not include Hong Kong and Macao, Special Administrative Regions (SAR) of China.

8 As of 1 July 1997, Hong Kong became a Special Administrative Region (SAR) of China.

9 Including Nagorno-Karabakh.

10 As of 20 December 1999, Macao became a Special Administrative Region (SAR) of China.

11 Including Northern-Cyprus.

12 Including Abkhazia and South Ossetia

13 Including Sabah and Sarawak.

14 Including East Jerusalem.

15 Including Transnistria.

CLASSIFICATION OF COUNTRIES (*continued*)

Europe

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

16 Refers to Guernsey, and Jersey.

17 Including Åland Islands.

18 Refers to the Vatican City State.

19 Including Svalbard and Jan Mayen Islands.

20 Including Kosovo.

21 Also referred to as United Kingdom.

22 Including Canary Islands, Ceuta and Melilla

23 Also referred to as TFYR Macedonia.

CLASSIFICATION OF COUNTRIES (*continued*)

Latin America and the Caribbean

<i>Caribbean</i>	<i>Central America</i>	<i>South America</i>
Anguilla*	Belize	Argentina
Antigua and Barbuda*	Costa Rica	Bolivia
Aruba	El Salvador	Brazil
Bahamas	Guatemala	Chile
Barbados	Honduras	Colombia
British Virgin Islands*	Mexico	Ecuador
Cayman Islands*	Nicaragua	Falkland Islands (Malvinas)*
Cuba	Panama	French Guiana
Dominica*		Guyana
Dominican Republic		Paraguay
Grenada		Peru
Guadeloupe ²⁴		Suriname
Haiti		Uruguay
Jamaica		Venezuela (Bolivarian Rep. of)
Martinique		
Montserrat*		
Netherlands Antilles ²⁵		
Puerto Rico		
Saint Kitts and Nevis*		
Saint Lucia		
Saint Vincent and the Grenadines		
Trinidad and Tobago		
Turks and Caicos Islands*		
United States Virgin Islands		

24 Including Saint-Barthélemy and Saint-Martin (French part).

25 Refers to Curaçao, Sint Maarten (Dutch part), Bonaire, Saba and Sint Eustatius

CLASSIFICATION OF COUNTRIES (*continued*)

Northern America

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

Oceania

<i>Australia/New Zealand</i>	<i>Melanesia</i>	<i>Micronesia</i>	<i>Polynesia</i> ²⁶
Australia ²⁷	Fiji	Guam	American Samoa*
New Zealand	New Caledonia	Kiribati*	Cook Islands*
	Papua New Guinea	Marshall Islands*	French Polynesia
	Solomon Islands	Micronesia	Niue*
	Vanuatu	(Federated States of)	Samoa
		Nauru*	Tokelau*
		Northern Mariana Islands*	Tonga
		Palau*	Tuvalu*
			Wallis and Futuna Islands*

Sub-Saharan Africa

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

26 Including Pitcairn.

27 Including Christmas Island, Cocos (Keeling) Islands, and Norfolk Island.

CLASSIFICATION OF COUNTRIES (*continued*)

Least developed countries

Afghanistan	Gambia	Rwanda
Angola	Guinea	Samoa
Bangladesh	Guinea-Bissau	São Tomé and Príncipe
Benin	Haiti	Senegal
Bhutan	Kiribati	Sierra Leone
Burkina Faso	Lao People's Democratic Republic	Solomon Islands
Burundi	Lesotho	Somalia
Cambodia	Liberia	South Sudan ²⁸
Central African Republic	Madagascar	Sudan
Chad	Malawi	Timor-Leste
Comoros	Mali	Togo
Democratic Republic of the Congo	Mauritania	Tuvalu
Djibouti	Mozambique	Uganda
Equatorial Guinea	Myanmar	United Republic of Tanzania
Eritrea	Nepal	Vanuatu
Ethiopia	Niger	Yemen
		Zambia

NOTE: Countries with fewer than 100,000 inhabitants in 2010 are marked by an asterisk (*).

²⁸ Pending the official status, it was decided to include South Sudan in the least developed countries for statistical purposes.

EXECUTIVE SUMMARY

Since 1988 the Population Division of the Department of Economic and Social Affairs of the United Nations has been issuing every two years revised and updated estimates and projections of the urban and rural populations of all countries in the world and of their major urban agglomerations. This note presents the main findings of the *2011 Revision of World Urbanization Prospects* which are consistent with the size of the total population of each country as estimated or projected in the *2010 Revision of World Population Prospects* (United Nations, 2011).

The *2011 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 major areas (i.e., Africa, Asia, Europe, Latin America and the Caribbean, Northern America and Oceania) and 21 regions. Data are further presented for the 231 countries or areas of the world. The *2011 Revision* also provides estimates and projections of the population of urban agglomerations with at least 750,000 inhabitants in 2011 for the period 1950-2025. 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.

As reported in previous revisions, more than half of the world population lives in urban areas. Nevertheless, not all regions of the world have reached this level of urbanization. According to the *2011 Revision*, it is expected that half of the population of Asia will live in urban areas by 2020, while Africa is likely to reach a 50 per cent urbanization rate only in 2035.

Between 2011 and 2050, the world population is expected to increase by 2.3 billion, passing from 7.0 billion to 9.3 billion (United Nations, 2011). At the same time, the population living in urban areas is projected to gain 2.6 billion, passing from 3.6 billion in 2011 to 6.3 billion 2050. Thus, the urban areas of the world are expected to absorb all the population growth expected over the next four decades while at the same time drawing in some of the rural population. As a result, the world rural population is projected to start decreasing in about a decade and there will likely be 0.3 billion fewer rural inhabitants in 2050 than today. Furthermore, most of the population growth expected in urban areas will be concentrated in the cities and towns of the less developed regions. Asia, in particular, is projected to see its urban population increase by 1.4 billion, Africa by 0.9 billion, and Latin America and the Caribbean by 0.2 billion. Population growth is therefore becoming largely an urban phenomenon concentrated in the developing world (David Satterthwaite, 2007).

Realization of these projections is contingent on the continuation of fertility reductions in the developing world. If fertility were to remain constant at current levels and the pace of urbanization remained that projected in the *2011 Revision*, the world urban population would increase to 7.4 billion by 2050 instead of the 6.3 billion expected when fertility is assumed to continue declining in all developing regions (United Nations, 2009b). In many countries, natural increase (the difference of births minus deaths) accounts for 60 per cent or more of urban population growth. Consequently, policies that facilitate the reduction of fertility by ensuring that couples have access to the modern contraception and that they can decide freely the number of children they desire can contribute to moderate increases in the number of urban dwellers, thereby making it easier for developing countries to adjust to the transformations associated with growing urbanization.

There is significant diversity in the urbanization levels reached by different regions. The transformative power of urbanization was felt earlier in today's more developed regions and they have

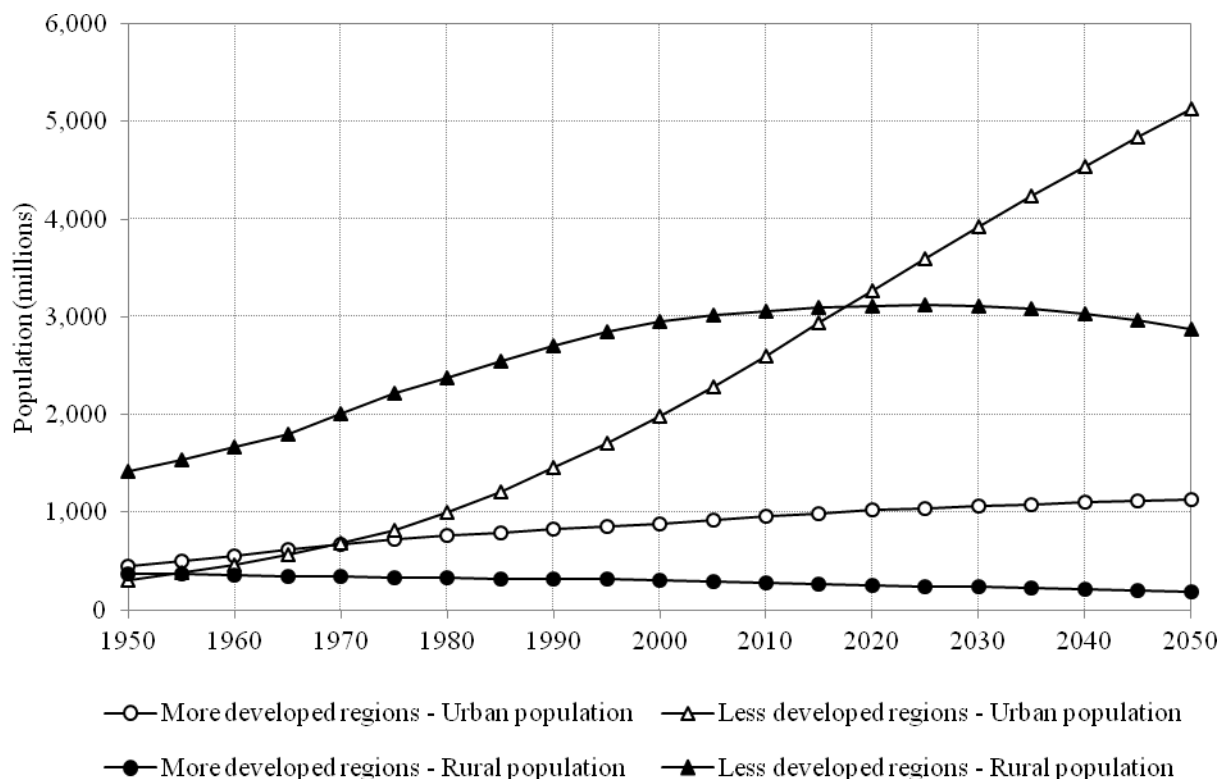
reached high levels of urbanization. Thus, 78 per cent of the inhabitants of the more developed regions lived in urban areas in 2011, whereas just 47 per cent of those in the less developed regions did so. Urbanization is expected to continue rising in both the more developed and the less developed regions so that, by 2050, urban dwellers will likely account for 86 per cent of the population in the more developed regions and for 64 per cent of that in the less developed regions. Overall, the world population is expected to be 67 per cent urban in 2050.

Today's 3.6 billion urban dwellers are distributed unevenly among urban settlements of different size. In discussing urbanization, the focus often is on large cities, cities whose populations are larger than those of many countries. In 2011, 23 urban agglomerations qualified as megacities because they had at least 10 million inhabitants. Despite their visibility and dynamism, megacities account for a small though increasing proportion of the world urban population: 9.9 per cent in 2011 and 13.6 per cent in 2025. At the same time, over half of the urban population lives and will continue to live in small urban centres with fewer than half a million inhabitants. These and other key findings of the *2011 Revision* are summarized below.

KEY FINDINGS OF THE 2011 REVISION

1. Major disparities in the level of urbanization exist among development groups. Thus, whereas the proportion urban in the more developed regions was already nearly 54 per cent in 1950, it will still take another decade for half of the population of the less developed regions to live in urban areas (figure I).

Figure I. Urban and rural populations by development group, 1950-2050



2. The world urban population is expected to increase by 72 per cent by 2050, from 3.6 billion in 2011 to 6.3 billion in 2050. By mid-century the world urban population will likely be the same size as the world's total population was in 2002. Virtually all of the expected growth in the world population will be concentrated in the urban areas of the less developed regions, whose population is projected to increase from 2.7 billion in 2011 to 5.1 billion in 2050. Over the same period, the rural population of the less developed regions is expected to decline from 3.1 billion to 2.9 billion. In the more developed regions, the urban population is projected to increase modestly, from 1 billion in 2011 to 1.1 billion in 2050 (table 1).

3. The world rural population is expected to reach a maximum of 3.4 billion in 2021 and to decline slowly thereafter, to reach 3.05 billion in 2050. These global trends are driven mostly by the dynamics of rural population growth in the less developed regions, which house today almost 92 per cent of the world rural population. Whereas the rural population of the more developed regions has been declining steadily during the second half of the twentieth century and will continue to do so for the foreseeable future, the rural population of the less developed regions more than doubled since 1950 and will likely continue to grow until 2021 before a long-term decline sets in.

4. The rate of growth of the world urban population is slowing down (table 1). Between 1950 and 2011, the world urban population grew at an average rate of 2.6 per cent per year and increased nearly fivefold over the period, passing from 0.75 billion to 3.6 billion. During 2011-2030, the world urban population is projected to grow at an average annual rate of 1.7 per cent, which, if maintained, would lead to a doubling of the urban population in 41 years. During 2030-2050, the urban growth rate is expected to decline further to 1.1 per cent per year, implying a doubling time of 63 years.

TABLE 1. TOTAL, URBAN AND RURAL POPULATIONS BY DEVELOPMENT GROUP, SELECTED PERIODS, 1950-2050

<i>Development group</i>	<i>Population (billion)</i>					<i>Average annual rate of change (percentage)</i>			
	<i>1950</i>	<i>1970</i>	<i>2011</i>	<i>2030</i>	<i>2050</i>	<i>1950-1970</i>	<i>1970-2011</i>	<i>2011-2030</i>	<i>2030-2050</i>
Total population									
World.....	2.53	3.70	6.97	8.32	9.31	1.89	1.55	0.93	0.56
More developed regions....	0.81	1.01	1.24	1.30	1.31	1.08	0.51	0.23	0.06
Less developed regions.....	1.72	2.69	5.73	7.03	7.99	2.23	1.85	1.07	0.65
Urban population									
World.....	0.75	1.35	3.63	4.98	6.25	2.98	2.41	1.66	1.13
More developed regions....	0.44	0.67	0.96	1.06	1.13	2.09	0.89	0.52	0.29
Less developed regions.....	0.30	0.68	2.67	3.92	5.12	4.04	3.33	2.02	1.34
Rural population									
World.....	1.79	2.34	3.34	3.34	3.05	1.36	0.87	-0.01	-0.44
More developed regions....	0.37	0.34	0.28	0.23	0.18	-0.48	-0.48	-0.92	-1.14
Less developed regions.....	1.42	2.01	3.07	3.11	2.87	1.74	1.03	0.07	-0.40

5. The sustained increase of the urban population combined with the pronounced deceleration of rural population growth will result in continued urbanization, that is, in increasing proportions of the population living in urban areas. Globally, the level of urbanization is expected to rise from 52 per cent in 2011 to 67 per cent in 2050 (table 2). The more developed regions are expected to see their level of urbanization increase from 78 per cent to 86 per cent over the same period. In the less developed regions, the proportion urban will likely increase from 47 per cent in 2011 to 64 per cent in 2050 (table 2).

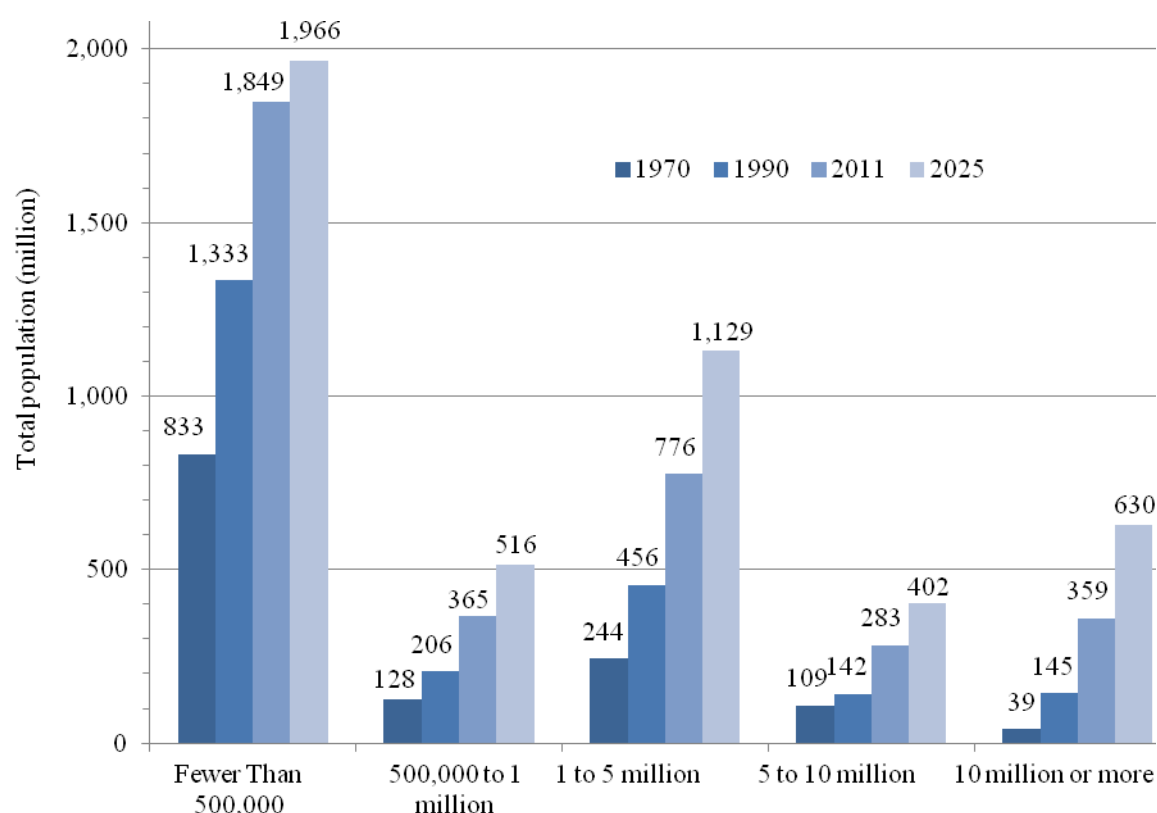
6. The world urban population is not distributed evenly among cities of different sizes. Over half of the world's 3.6 billion urban dwellers (50.9 per cent) lived in cities or towns with fewer than half a million inhabitants. Such small cities account for 55 per cent of the urban population in the more developed regions and for 50.2 per cent of that in the less developed regions.

TABLE 2. PERCENTAGE URBAN BY DEVELOPMENT GROUP, SELECTED PERIODS, 1950-2050

<i>Development group</i>	<i>Percentage urban</i>					<i>Rate of urbanization (percentage)</i>			
	<i>1950</i>	<i>1970</i>	<i>2011</i>	<i>2030</i>	<i>2050</i>	<i>1950-1970</i>	<i>1970-2011</i>	<i>2011-2030</i>	<i>2030-2050</i>
World.....	29.4	36.6	52.1	59.9	67.2	1.09	0.86	0.74	0.57
More developed regions.....	54.5	66.6	77.7	82.1	85.9	1.01	0.38	0.29	0.23
Less developed regions.....	17.6	25.3	46.5	55.8	64.1	1.81	1.48	0.95	0.69

7. In 2011, cities with fewer than 500,000 inhabitants accounted for about half of the world urban population, amounting to 1.85 billion (figure II). Cities with populations ranging between 500,000 and 1 million were home to a further 365 million people, equivalent to 10.1 per cent of the world urban population. Taken together, cities with fewer than 1 million inhabitants account for 61 per cent of the urban population.

Figure II. Total population in millions by city size class, 1970, 1990, 2011 and 2025



NOTE: The overall population in the smallest cities is estimated as the difference of the total urban population and the sum of the populations in cities estimated to have at least 500,000 inhabitants at each point in time.

8. While three in every five people living in urban areas reside in cities smaller than 1 million inhabitants in 2011, this proportion is expected to decline in the future. By 2025, only one person out of two will live in cities of this size. In contrast, cities of 1 million and more inhabitants, accounting for about 40 per cent of the world urban population in 2011, are expected to account for 47 per cent of the world urban population by 2025. Indeed, the future urban population will be increasingly concentrated in large cities of one million or more inhabitants. In fact, among the million plus cities, the megacities of at least 10 million inhabitants will experience the largest percentage increase. This increasing urban concentration in very large cities is a new trend which contradicts previous observations.

9. By 1970, the world had only two megacities: Tokyo and New York. Since then their number has increased markedly and most new megacities have arisen in developing countries (table 3). Today, Asia has 13 megacities, Latin America has four, and Africa, Europe and Northern America have two each (table 3). Thirteen of those megacities are capitals of their countries. By 2025, when the number of

megacities is expected to reach 37, Asia would have gained another nine, Latin America two, and Africa, Europe and Northern America one each. This indicates a clear trend of accelerated urban concentration in Asia.

10. In 2011, the world counted 23 megacities of at least 10 million inhabitants accounting for 9.9 per cent of the world urban population. The number of megacities is projected to increase to 37 in 2025, at which time they are expected to account for 13.6 per cent of the world urban population.

11. Between 1970 and 2011, the number of people living in megacities has been multiplied almost 10 times, passing from 39.5 millions to 359.4 millions. It is expected that this number will almost double by 2025 and reach 630 millions. Today, about 1 person out of 10 living in urban areas resides in a megacity of at least 10 million inhabitants; by 2025, it is expected that about 1 person out of 7-8 living in urban areas will live in a megacity. In relation to the overall population of the world, the share of megacities was 5.2 per cent in 2011, implying that just about one in every twenty people on Earth live in megacities. By 2025, the population living in megacities is expected to reach almost 8 per cent of the overall world population. One out of 13 people will then reside in a megacity.

12. Tokyo, the capital of Japan, is today the most populous urban agglomeration. Its population, estimated at 37.2 million in 2011, is higher than that of 196 countries or areas. If it were a country, it would rank 35th in population size, surpassing the populations of Algeria, Canada or Uganda. To reach such a large number of inhabitants, Tokyo, the megacity, is actually an urban agglomeration that comprises not only Tokyo-to but also 87 surrounding cities and towns, including Yokohama, Kawasaki and Chiba, large cities in their own right. Often, megacities arise because of the fusion of several cities or urban localities that are functionally linked and form an urban agglomeration.

13. Following Tokyo, the next largest urban agglomerations are Delhi in India with 23 million inhabitants, Mexico City in Mexico, New York-Newark in the United States of America, Shanghai in China, São Paulo in Brazil and Bombay in India, each with about 20 million inhabitants. The smallest megacities are located in Africa and Europe. They include the two megacities in Africa, namely, Lagos in Nigeria and Cairo in Egypt, each with 11 million inhabitants, and the two megacities in Europe, namely, Moscow in the Russian Federation with 11.6 million inhabitants and Paris in France with 10.6 million inhabitants.

TABLE 3. POPULATION OF URBAN AGGLOMERATIONS WITH 10 MILLION INHABITANTS OR MORE, 1950, 1975, 2011 AND 2025 (MILLIONS)

1970			1990		
Rank	Urban agglomeration	Population	Rank	Urban agglomeration	Population
1	Tokyo, Japan	23.3	1	Tokyo, Japan	32.5
2	New York-Newark, USA	16.2	2	New York-Newark, USA	16.1
			3	Ciudad de México (Mexico City), Mexico	15.3
			4	São Paulo, Brazil	14.8
			5	Mumbai (Bombay), India	12.4
			6	Osaka-Kobe, Japan	11.0
			7	Kolkata (Calcutta), India	10.9
			8	Los Angeles-Long Beach-Santa Ana, USA	10.9
			9	Seoul, Republic of Korea	10.5
			10	Buenos Aires, Argentina	10.5

2011			2025		
Rank	Urban agglomeration	Population	Rank	Urban agglomeration	Population
1	Tokyo, Japan	37.2	1	Tokyo, Japan	38.7
2	Delhi, India	22.7	2	Delhi, India	32.9
3	Ciudad de México (Mexico City), Mexico	20.4	3	Shanghai, China	28.4
4	New York-Newark, USA	20.4	4	Mumbai (Bombay), India	26.6
5	Shanghai, China	20.2	5	Ciudad de México (Mexico City), Mexico	24.6
6	São Paulo, Brazil	19.9	6	New York-Newark, USA	23.6
7	Mumbai (Bombay), India	19.7	7	São Paulo, Brazil	23.2
8	Beijing, China	15.6	8	Dhaka, Bangladesh	22.9
9	Dhaka, Bangladesh	15.4	9	Beijing, China	22.6
10	Kolkata (Calcutta), India	14.4	10	Karachi, Pakistan	20.2
11	Karachi, Pakistan	13.9	11	Lagos, Nigeria	18.9
12	Buenos Aires, Argentina	13.5	12	Kolkata (Calcutta), India	18.7
13	Los Angeles-Long Beach-Santa Ana, USA	13.4	13	Manila, Philippines	16.3
14	Rio de Janeiro, Brazil	12.0	14	Los Angeles-Long Beach-Santa Ana, USA	15.7
15	Manila, Philippines	11.9	15	Shenzhen, China	15.5
16	Moskva (Moscow), Russian Federation	11.6	16	Buenos Aires, Argentina	15.5
17	Osaka-Kobe, Japan	11.5	17	Guangzhou, Guangdong, China	15.5
18	Istanbul, Turkey	11.3	18	Istanbul, Turkey	14.9
19	Lagos, Nigeria	11.2	19	Al-Qahirah (Cairo), Egypt	14.7
20	Al-Qahirah (Cairo), Egypt	11.2	20	Kinshasa, Democratic Rep. of the Congo	14.5
21	Guangzhou, Guangdong, China	10.8	21	Chongqing, China	13.6
22	Shenzhen, China	10.6	22	Rio de Janeiro, Brazil	13.6
23	Paris, France	10.6	23	Bangalore, India	13.2
			24	Jakarta, Indonesia	12.8
			25	Chennai (Madras), India	12.8
			26	Wuhan, China	12.7
			27	Moskva (Moscow), Russian Federation	12.6
			28	Paris, France	12.2
			29	Osaka-Kobe, Japan	12.0
			30	Tianjin, China	11.9
			31	Hyderabad, India	11.6
			32	Lima, Peru	11.5
			33	Chicago, USA	11.4
			34	Bogotá, Colombia	11.4
			35	Krung Thep (Bangkok), Thailand	11.2
			36	Lahore, Pakistan	11.2
			37	London, United Kingdom	10.3

14. In 2025, Tokyo is projected to remain the world's most populous urban agglomeration, with almost 39 million inhabitants, although its population will scarcely increase. It will be followed by Delhi in India with 33 million inhabitants and Shanghai in China with 28.4 million inhabitants. Mumbai in India would come next, with almost 27 million inhabitants. All three cities are expecting important population gains.

15. Megacities are experiencing very different rates of population change (table 4). The megacities exhibiting the lowest rates of population growth include those located in developed countries (France, Japan, the Russian Federation and the United States) plus the four megacities in Latin America. Very high

rates of growth are expected in Lagos in Nigeria, Dhaka in Bangladesh, and Karachi in Pakistan (all having growth rates well above 2 per cent per year). In addition, the megacities in India (Delhi, Calcutta and Bombay) and in China (Shenzhen, Beijing, Guangzhou, Shanghai) plus Manila in the Philippines are expected to grow considerably faster than those in Egypt or Turkey. These trends are consistent with the overall differentials in fertility among the national populations concerned. As noted earlier, the excess of births over deaths is an important component of population growth in most urban areas and the projected rates of population growth in megacities reflect the gradient in natural increase of the countries they belong to.

TABLE 4. POPULATION OF URBAN AGGLOMERATIONS WITH 10 MILLION INHABITANTS OR MORE IN 2011 AND THEIR AVERAGE ANNUAL RATES OF CHANGE, SELECTED PERIODS, 1970-2025

<i>Urban agglomeration</i>	<i>Population</i>				<i>Average annual rate of change</i>		
	<i>(millions)</i>				<i>(percentage)</i>		
	<i>1970</i>	<i>1990</i>	<i>2011</i>	<i>2025</i>	<i>1970-1990</i>	<i>1990-2011</i>	<i>2011-2025</i>
Lagos, Nigeria	1.4	4.8	11.2	18.9	6.08	4.08	3.71
Dhaka, Bangladesh	1.4	6.6	15.4	22.9	7.86	4.02	2.84
Shenzhen, China	0.0	0.9	10.6	15.5	18.44	11.89	2.71
Karachi, Pakistan	3.1	7.1	13.9	20.2	4.15	3.16	2.68
Delhi, India	3.5	9.7	22.7	32.9	5.07	4.03	2.67
Beijing, China	4.4	6.8	15.6	22.6	2.14	3.96	2.66
Guangzhou, Guangdong, China	1.5	3.1	10.8	15.5	3.45	6.01	2.54
Shanghai, China	6.0	7.8	20.2	28.4	1.30	4.52	2.43
Manila, Philippines	3.5	8.0	11.9	16.3	4.07	1.89	2.26
Mumbai (Bombay), India	5.8	12.4	19.7	26.6	3.80	2.20	2.12
Istanbul, Turkey	2.8	6.6	11.3	14.9	4.30	2.58	2.00
Al-Qahirah (Cairo), Egypt	5.6	9.1	11.2	14.7	2.42	1.00	1.98
Kolkata (Calcutta), India	6.9	10.9	14.4	18.7	2.26	1.33	1.87
Ciudad de México (Mexico City), Mexico	8.8	15.3	20.4	24.6	2.79	1.38	1.32
Los Angeles-Long Beach-Santa Ana, USA	8.4	10.9	13.4	15.7	1.31	0.99	1.13
São Paulo, Brazil	7.6	14.8	19.9	23.2	3.31	1.42	1.08
New York-Newark, USA	16.2	16.1	20.4	23.6	-0.03	1.12	1.05
Buenos Aires, Argentina	8.1	10.5	13.5	15.5	1.30	1.20	0.98
Paris, France	8.2	9.3	10.6	12.2	0.64	0.62	0.97
Rio de Janeiro, Brazil	6.6	9.6	12.0	13.6	1.84	1.05	0.93
Moskva (Moscow), Russian Federation	7.1	9.0	11.6	12.6	1.17	1.22	0.56
Osaka-Kobe, Japan	9.4	11.0	11.5	12.0	0.80	0.19	0.33
Tokyo, Japan	23.3	32.5	37.2	38.7	1.67	0.64	0.27

NOTE: Urban agglomerations are ordered according to their projected rate of population change during 2011-2025.

16. Although the megacities attract considerable attention because of their population size and geographical complexity, they represent the extreme of the distribution of cities by population size. They are followed by large cities with populations ranging from 5 million to just under 10 million, which in 2011 numbered 40 and are expected to number 59 in 2025. Over three quarters of these “megacities in waiting” are located in developing countries and account for about 9 per cent of the urban population (table 5).

17. Cities in the next size class, with more than a million inhabitants but fewer than 5 million, are numerous (394 in 2011 increasing to 573 in 2025) and they account for 21 per cent of the urban population. Smaller cities, with populations ranging from 500,000 to one million inhabitants, are even more numerous (525 in 2011 rising to 750 in 2025), but they account for just 10 per cent of the overall urban population (table 5).

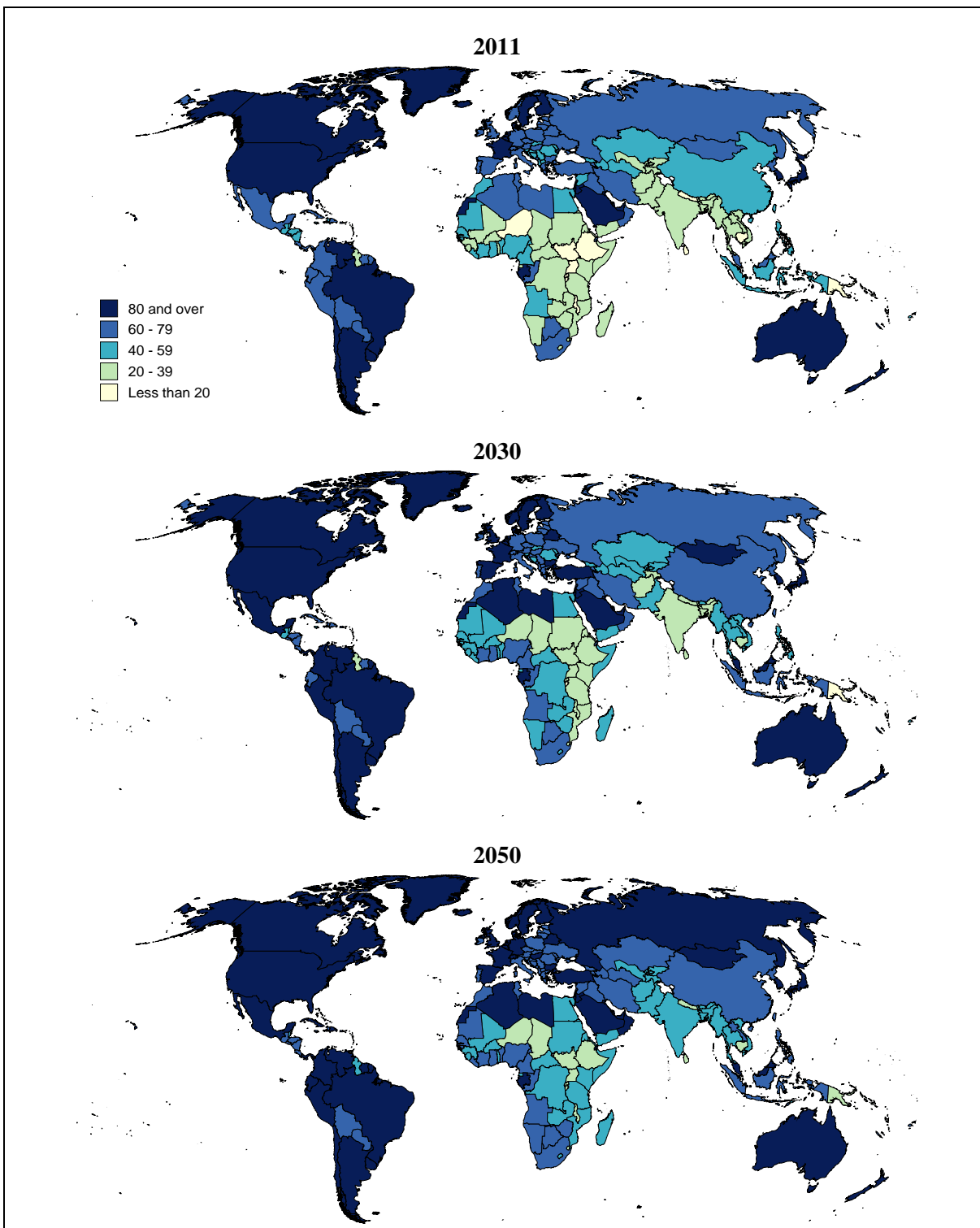
TABLE 5. POPULATION DISTRIBUTION OF THE WORLD AND DEVELOPMENT GROUPS, BY AREA OF RESIDENCE AND SIZE CLASS OF URBAN SETTLEMENT, 1970, 2011 AND 2025

Development group	Area of residence and size class of urban settlement (number of inhabitants)	Population (millions)			Percentage distribution		
		1970	2011	2025	1970	2011	2025
World	Urban area	1,352	3,632	4,643	100.0	100.0	100.0
	10 million or more	39	359	630	2.9	9.9	13.6
	5 million to 10 million	109	283	402	8.0	7.8	8.7
	1 million to 5 million	244	775	1,128	18.0	21.3	24.3
	500,000 to 1 million	128	365	516	9.4	10.1	11.1
	Fewer than 500,000	833	1,850	1,967	61.6	50.9	42.4
More developed regions	Urban area	671	964	1,043	100.0	100.0	100.0
	10 million or more	39	105	136	5.9	10.9	13.1
	5 million to 10 million	48	54	81	7.1	5.6	7.8
	1 million to 5 million	124	210	229	18.5	21.7	21.9
	500,000 to 1 million	66	87	111	9.9	9.0	10.7
	Fewer than 500,000	393	509	485	58.5	52.8	46.5
Less developed regions	Urban area	682	2,668	3,600	100.0	100.0	100.0
	10 million or more	0	255	494	0.0	9.5	13.7
	5 million to 10 million	61	229	321	8.9	8.6	8.9
	1 million to 5 million	120	567	900	17.6	21.2	25.0
	500,000 to 1 million	61	278	405	9.0	10.4	11.2
	Fewer than 500,000	440	1,339	1,480	64.6	50.2	41.1

18. The distribution of the urban population by city size class varies among the major areas. Europe, for instance, is exceptional in that 67 per cent of its urban dwellers live in urban centres with fewer than 500,000 inhabitants and only 9.6 per cent live in cities with 5 million inhabitants or more. Africa has a distribution of the urban population by size of urban settlement resembling that of Europe, with 57 per cent of urban dwellers living in smaller cities (those with fewer than half a million inhabitants) and barely 9 per cent living in cities with over 5 million inhabitants. In Asia, Latin America and the Caribbean, and Northern America, the concentration of the urban population in large cities is marked: about one in every five urban dwellers in those major areas lives in a large urban agglomeration. At the same time, the proportion of urban dwellers living in small cities is between 49 per cent and 47 per cent in Asia and in Latin America and the Caribbean and is a low 32 per cent in Northern America. Oceania is a special case because it lacks cities with more than 5 million inhabitants but also has a relatively low percentage of its population living in urban centres with fewer than half a million inhabitants (39 per cent).

19. Historically, the process of rapid urbanization started first in today's more developed regions. In 1920, just under 30 per cent of their population was urban and by 1950, more than half of their population was living in urban areas. In 2011, high levels of urbanization, surpassing 80 per cent, characterized Australia, New Zealand and Northern America. Europe, with 73 per cent of its population living in urban areas, was the least urbanized major area in the developed world. By 2050, Australia, New Zealand and Northern America are all expected to be over 90 per cent urban while Europe's level of urbanization is projected to be lower, at 82 per cent (table 6).

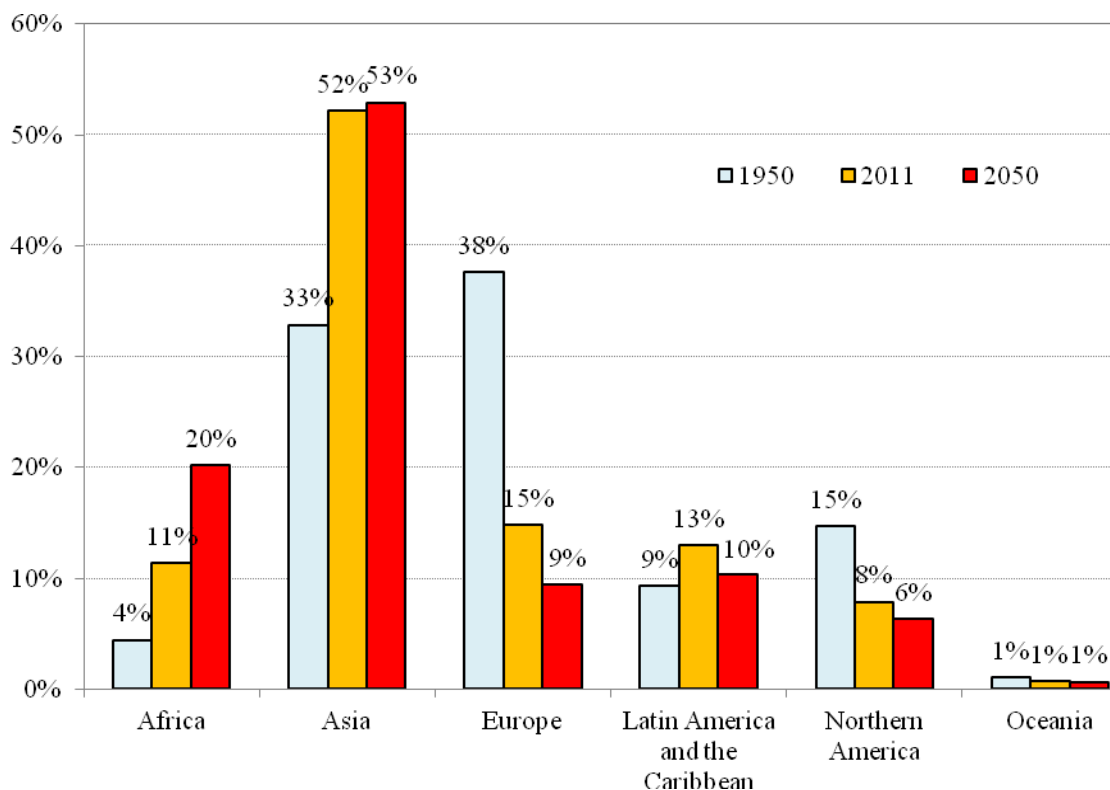
Figure III. Percentage of the population in urban areas, 2011, 2030 and 2050



Source: United Nations, Department of Economic and Social Affairs, Population Division: World Population Prospects DEMOBASE extract. 2012.

NOTE: The boundaries shown on this map do not imply official endorsement or acceptance by the United Nations.

Figure IV. Distribution of the world urban population by major area, 1950, 2011, 2050



20. Among the less developed regions, Latin America and the Caribbean has an exceptionally high level of urbanization (79 per cent), higher than that of Europe. Africa and Asia, in contrast, remain mostly rural, with 40 per cent and 45 per cent, respectively, of their populations living in urban areas. Over the coming decades, the level of urbanization is expected to increase in all major areas of the developing world, with Africa and Asia urbanizing more rapidly than the rest (table 6). Nevertheless, by mid-century, Africa and Asia are expected still to have lower levels of urbanization than the more developed regions or Latin America and the Caribbean (figure III).

TABLE 6. PERCENTAGE URBAN BY MAJOR AREA, SELECTED PERIODS, 1950-2050

Major area	Percentage urban					Rate of urbanization (percentage)			
	1950	1970	2011	2030	2050	1950-1970	1970-2011	2011-2030	2030-2050
Africa.....	14.4	23.5	39.6	47.7	57.7	2.47	1.27	0.98	0.96
Asia.....	17.5	23.7	45.0	55.5	64.4	1.52	1.57	1.10	0.74
Europe.....	51.3	62.8	72.9	77.4	82.2	1.02	0.36	0.31	0.30
Latin America and the Caribbean	41.4	57.1	79.1	83.4	86.6	1.61	0.80	0.28	0.19
Northern America	63.9	73.8	82.2	85.8	88.6	0.72	0.26	0.22	0.16
Oceania.....	62.4	71.2	70.7	71.4	73.0	0.66	-0.02	0.05	0.12

21. Despite its low level of urbanization, in 2011 Asia was home to about half of the urban population in the world. Europe had the second highest share, at 15 per cent (figure IV). Over the next four decades,

Africa and Asia will experience a marked increase in their urban populations. In Africa the urban population is likely to treble and in Asia it will increase by 1.7 times (table 7). By mid-century, most of the urban population of the world will be concentrated in Asia (53 per cent) and Africa (20 per cent).

22. With the exception of Africa and Oceania, all major areas are expected to have smaller rural populations in 2050 than today (table 7). Africa's rural population may start to decline before the mid-century. Today, the majority of rural dwellers live in Asia (69 per cent) and Africa (19 per cent) and the concentration of the world rural population in these two major areas combined is expected to increase so that, by 2050, 60 per cent of all rural inhabitants are projected to live in Asia and 30 per cent in Africa.

TABLE 7. TOTAL, URBAN AND RURAL POPULATIONS BY MAJOR AREA, SELECTED PERIODS, 1950-2050

Major area	Population (millions)					Average annual rate of change (percentage)			
	1950	1970	2011	2030	2050	1950- 1970	1970- 2011	2011- 2030	2030- 2050
Total population									
Africa.....	230	368	1,046	1,562	2,192	2.35	2.55	2.11	1.69
Asia.....	1,403	2,135	4,207	4,868	5,142	2.10	1.65	0.77	0.27
Europe.....	547	656	739	741	719	0.91	0.29	0.01	-0.15
Latin America and the Caribbean	167	286	597	702	751	2.69	1.79	0.85	0.34
Northern America	172	231	348	402	447	1.49	0.99	0.76	0.53
Oceania	13	20	37	47	55	2.16	1.57	1.25	0.80
Urban population									
Africa.....	33	87	414	744	1,265	4.82	3.82	3.09	2.65
Asia.....	245	506	1,895	2,703	3,310	3.62	3.22	1.87	1.01
Europe.....	281	412	539	573	591	1.92	0.65	0.33	0.15
Latin America and the Caribbean	69	163	472	585	650	4.29	2.59	1.13	0.53
Northern America	110	171	286	344	396	2.21	1.26	0.98	0.70
Oceania	8	14	26	34	40	2.82	1.56	1.30	0.91
Rural population									
Africa.....	197	282	632	818	927	1.79	1.97	1.35	0.63
Asia.....	1,158	1,629	2,312	2,165	1,833	1.71	0.85	-0.35	-0.83
Europe.....	267	244	200	168	128	-0.45	-0.48	-0.93	-1.34
Latin America and the Caribbean	98	123	124	116	100	1.13	0.03	-0.36	-0.73
Northern America	62	61	62	57	51	-0.11	0.05	-0.40	-0.59
Oceania	5	6	11	13	15	0.82	1.62	1.12	0.50

23. The world urban population is highly concentrated in a few countries. In 2011, about three quarters of the 3.6 billion urban dwellers on Earth lived in 25 countries, whose urban populations ranged from 31 million in Ukraine to 682 million in China. China, India and the United States accounted for 37 per cent of the world urban population. Most of the 25 countries with the largest urban populations are highly urbanized, but eight have levels of urbanization ranging from 28 per cent to 51 per cent and they include some of the most populous countries in the world: Bangladesh, China, India, Indonesia, Nigeria and Pakistan.

24. Most countries have small urban populations. In 2011, almost two thirds of the 231 countries or areas considered had fewer than 5 million urban dwellers and they accounted for barely 5 per cent of the world urban population. Among them, 84 per cent had urban populations below one million and accounted for 0.5 per cent of all urban dwellers on Earth. By 2050, just half of all countries or areas are expected to have fewer than 5 million urban dwellers and will account for 1.7 per cent of the world urban population.

25. Similarly, the increases in the world urban population are concentrated in a few countries, with China and India together projected to account for about a third of the increase in the urban population in the coming decades. Between 2011 and 2030, the urban areas of the world are expected to gain 1.4 billion people, including 276 million in China and 218 million in India, which account together for 37 per cent of the total increase. Nine additional countries are projected to contribute 26 per cent of the urban increment, with increases ranging from 22 million to 76 million. The countries involved are: Nigeria and the Democratic Republic of the Congo in Africa; Bangladesh, Indonesia, Pakistan and the Philippines in Asia; Brazil and Mexico in Latin America, and the United States of America. Among them, those in Africa and Asia will experience high rates of urban population growth, usually surpassing 2 per cent or even 3 per cent per year

26. A further urban increment of 1.3 billion people is expected globally during 2030-2050, with India being the major contributor (270 million) and Nigeria following (121 million). Together, these two countries are expected to account for 31 per cent of urban growth during 2030-2050. China will only contribute an additional 44 million during the same period. Yet, China will still have the largest urban population in 2050 (1 billion), followed by India (0.9 billion).

27. In a few developed countries, the urban population will decrease. Despite the projected increases in the level of urbanization, overall population decline in several countries will lead to a reduction in the number of urban dwellers. Between 2011 and 2030, the urban population of Ukraine and Bulgaria are projected to decline by 2 million and 0.2 million, respectively. Between 2030 and 2050, more countries will experience reductions in the urban population. Those with the largest drops include Japan (a reduction of 10 million), the Russian Federation (2.4 million), the Republic of Korea (1.7 million) and Ukraine (1.3 million).

28. The rural population is even more highly concentrated in a few countries than the urban population. In 2011, 19 countries accounted for 75 per cent of the rural population and all but three (Brazil, the Russian Federation and the United States) are located in Africa or Asia. India has the largest rural population (853 million), followed by China (666 million). Together, they account for 45 per cent of the world rural population. Bangladesh, Indonesia and Pakistan follow, each with over 107 million rural inhabitants.

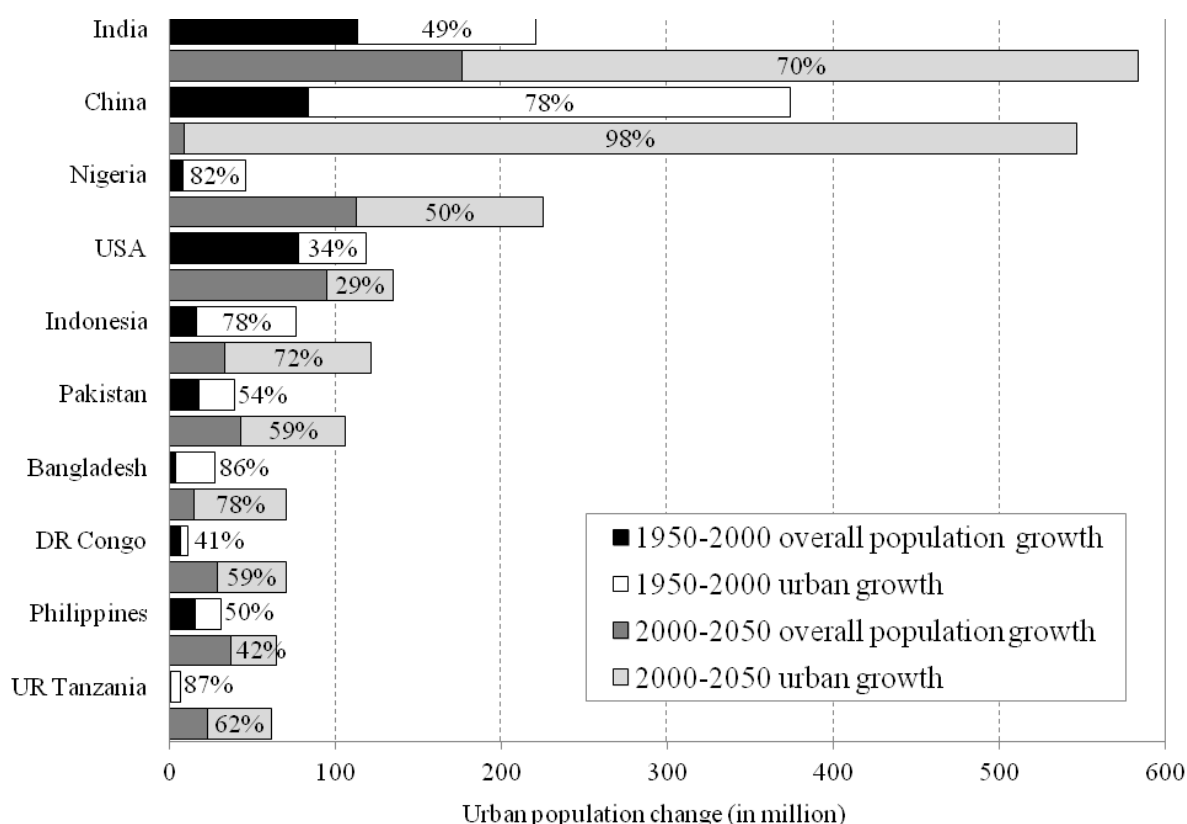
29. In Africa, the largest rural populations are located in Nigeria (82 million), Ethiopia (70 million), Egypt (47 million), the Democratic Republic of the Congo (45 million), the United Republic of Tanzania (34 million), Kenya (32 million) and Uganda (29 million). During 2011-2030, the rural populations of most of those African countries are projected to increase at rates higher than 1.3 per cent per year, except in the cases of Nigeria and Egypt. Among the populous countries in Asia, Pakistan is expected to experience the highest growth rate of the rural population during 2011-2030 (0.8 per cent per year). In contrast, in eight of the 19 countries with large rural populations, the rural population is declining, with China, the Russian Federation, Brazil, Indonesia, Thailand and the United States having the fastest rates of decline.

30. As in the case of the urban population, most countries have small rural populations. In 2011, two thirds of the 231 countries or areas considered had at most 5 million rural inhabitants and accounted for

4.9 per cent of the world rural population. In more than two thirds of them, the rural population is projected to decrease during 2011-2050.

31. The past and future trends of the urban (and rural) population change are influenced by two components. The first is the overall increase (or decline) of the national population. The second is the *urban* population change resulting from the increase (or decline) of the urban population only. The contribution of each component in the urban population change between 1950 and 2000 and 2000 and 2050 varies markedly among the ten countries with the largest increase of their future urban population (figure V).

Figure V. Contribution of demographic and urban growth to urbanization among the ten countries with the largest increase in their urban population between 2000 and 2050, 1950-2050



32. The increase in the urban population between 1950 and 2000 is equally divided between overall population increase and urban growth in India, Pakistan, the Democratic Republic of the Congo and the Philippines. However, urban population growth played a more important role in the urbanization of China, Nigeria, Indonesia, Bangladesh and the United Republic of Tanzania. Among these ten countries, only in the United States overall population increase has been the *main* driver of urbanization between 1950 and 2000.

33. Between 2000 and 2050, urban growth will be the sole driver of the increase in the urban population of China. In India, the urban population is expected to increase by two thirds due to urban growth and one third due to the overall population increase. In contrast, the urbanization of the United States until 2050 will be still mainly led by an increase in the overall increase of the population.

34. Faced with the opportunities and challenges associated with urbanization, many Governments have consistently considered their population's spatial distribution as a concern. In 2009, 83 per cent of Governments expressed concern about their pattern of population distribution, down from 89 per cent in

the 1970s (table 8). Among developing countries, 58 per cent expressed the desire to modify in a major way the spatial distribution of their populations, whereas 28 per cent wanted to effect only minor changes. Among developed countries, 29 per cent desired a major change and 43 per cent a minor change.

35. Dissatisfaction regarding patterns of population distribution was highest in Africa (75 per cent of its countries wished to make major changes in the spatial distribution of their populations) and Asia (57 per cent desired a major change). In Latin America and the Caribbean, Oceania and Europe, about 40 per cent of Governments considered that major changes in spatial distribution were desirable.

36. Policies aimed at modifying the spatial distribution of a population often focus on ways to reduce migrant flows to large cities. In 1976, 44 per cent of developing countries reported having implemented such policies and by 2011, that proportion had increased to 72 per cent. At the same time, among developed countries, the proportion having policies to reduce migrant flows to large cities declined from 55 per cent in 1976 to 26 per cent in 1996 but increased later to 34 per cent in 2009. In Oceania, 83 per cent of countries have such policies, in Africa 77 per cent, in Asia 66 per cent and in Latin America and the Caribbean 68 per cent (United Nations, 2009 a).

TABLE 8. GOVERNMENT VIEWS ON THE SPATIAL DISTRIBUTION OF THE POPULATION, 2009

	<i>Major change desired</i>	<i>Minor change desired</i>	<i>Satisfactory</i>	<i>Total</i>	<i>Major change desired</i>	<i>Minor change desired</i>	<i>Satisfactory</i>	<i>Total</i>
	<i>Number of countries</i>				<i>Percentage</i>			
World.....	99	62	34	195	51	32	17	100
More developed regions....	14	21	14	49	29	43	29	100
Less developed regions.....	85	41	20	146	58	28	14	100

Source: *World Population Policies 2009* (United Nations publication, Sales No.E.09.XIII.14).

37. Historically, urbanization has been driven by the concentration of investment and employment opportunities in urban areas. Productive activities in industry and services cluster in cities. By one estimate, 80 per cent of the world's gross domestic product (GDP) is generated by urban areas. As cities attract businesses and jobs, they bring together both the human and the entrepreneurial resources to generate new ideas, innovations and increasingly productive uses of technology. The *2011 Revision of World Urbanization Prospects* provides a useful basis for the analysis of the world's urban transformation and the dynamics of city growth.

38. The *2011 Revision of the World Urbanization Prospects* includes, for the first time, geographical coordinates for all the cities with more than 750,000 inhabitants. This will allow researchers to link future demographic trends in urban agglomerations to various spatial and environmental characteristics, such proximity to coasts, earthquake faults, or climate zones.

39. Estimates and projections of urban and rural populations as well as urban agglomerations critically depend on information from censuses. For the *2011 Revision of the World Population Prospects* results from the 2010 round of censuses that became available since the release of the previous revision could now be included for many countries.

URBANIZATION AND NATURAL HAZARDS

For the first time, the *2011 Revision of the World Urbanization Prospects* includes geographical coordinates for all 633 cities with more than 750,000 inhabitants in 2011. This will allow researchers to link demographic trends in urban agglomerations to various spatial and environmental characteristics, such as proximity to coastal areas, earthquake faults, or climate zones. In an initial analysis the Population Division combined data from the *2011 Revision of the World Urbanization Prospects* with a spatial database on natural hazards prepared by the Center for International Earth Science Information Network (CIESIN) at Columbia University.²⁹ In this database an area is classified to be at “relatively high risk” of a particular natural disaster if it is located in grid cells ranking in the top three deciles of the global risk distribution in terms of frequency of occurrences and scales of one or more specified natural hazards. The main findings of this analysis are as follows:

1. Of the more than 450 urban areas with 1 million inhabitants or more in 2011 (representing 1.4 billion people), 60 per cent, or about 890 million people, were living in areas of high risk of exposure to at least one natural hazard (tables 9 and 10).³⁰

2. Europe’s and Africa’s major cities are the least exposed overall. Only 26 and 37 per cent of their cities with one million inhabitants or more are located in areas at high risk of exposure to at least one natural disaster. However, cities in Latin America and the Caribbean, in Northern America, and especially in Asia are often located in areas exposed to natural hazards (figure VI). Depending on the region, between half and two thirds of the cities with 1 million inhabitants or more are located in areas that face high risk of exposure to at least one natural disaster.

3. Flooding is the most frequent and greatest hazard for the 633 largest cities or urban agglomerations analyzed: At least 233 cities are located in or close to areas with a high risk of flooding – potentially affecting 663 million inhabitants. One hundred forty eight of these cities are not coastal cities.³¹ Exposure to a high risk of flooding does not necessarily mean that those cities are actually affected by frequent floods. One has to take into account that this analysis relies only on flood data for the period 1985 to 2003. Previous or more recent flooding events have not been considered. The geographical data are also rather coarse and refer to a 55-kilometer radius around the city proper. Moreover, cities may have already built infrastructure to prevent flooding, such as dams, dikes or flood retention areas. However, the data indicate that these 233 large cities may need to take precautions for flooding, if they have not already done so.

4. Drought is the second most frequent hazard, affecting areas where 132 cities are located, followed by cyclones affecting 68 cities and earthquakes threatening 40 of the 633 cities analyzed (table 11). Some 277 million people live in cities at high risk of droughts and 229 million reside in cities at high risk of cyclones (table 12). Other cities are also exposed to some of these hazards but to a lesser extent.

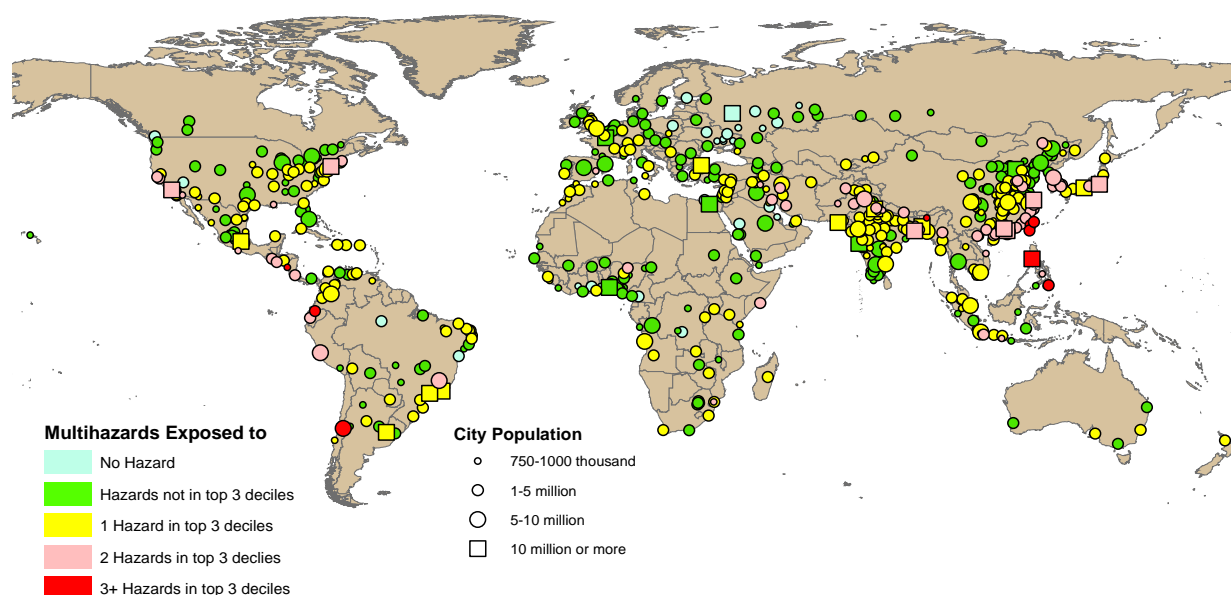
²⁹ *Natural Disaster Hotspots: A Global Risk Analysis* (Dilley et al., 2005) jointly produced by the Center for Hazards and Risk Research (CHRR), the Center for International Earth Science Information Network (CIESIN), the International Research Institute for Climate Prediction (IRI), and the Lamont-Doherty Earth Observatory (LDEO) at Columbia University, and the Hazard Management Unit (HMU), Development Economics Research Group (DECRG) at the World Bank, (<http://www.ldeo.columbia.edu/chrr/research/hotspots/>). The database includes information collected for cyclones (for the period between 1980 and 2000), droughts (between 1980 and 2000), earthquakes (between 1976 and 2002), floods (between 1985 and 2003), landslides, and volcano eruptions (between 79 and 2000). Data are published with a spatial resolution ranging from a 30 by 30 arc second grid to a 2.5 by 2.5 arc degree grid for cyclones, earthquakes, landslides, volcanoes, droughts and floods. Data for floods are less reliable or missing in the early-mid 1990s. For each single hazard, all grid cells with occurrence data were divided into deciles, 10 classes consisting of approximately equal numbers of grid cells. The higher the value of the grid cell, the higher the decile ranking and the greater the frequency of the hazard relative to other cells (Dilley et al., 2005: 23-34).

³⁰ Since the location of cities in the *World Urbanization Prospects* is specified by point coordinates, a buffer tool in ArcGIS 10.0 (ESRI, 2011) was employed to create buffer polygons with 2 km and 5 km distance from the point data, respectively, to approximately reflect their actual locations as accurate as possible. In classifying the degree of risk exposure of a city to hotspots of a specific hazard, the highest cell value of grids is used when the city’s buffer zones overlap with surrounding grid cells of that particular hazard.

³¹ The geographic data (in shape files) for coastal areas were from the Millennium Ecosystem Assessment (MA). The coastal areas were defined as areas between 50 meters below mean sea level and 50 meters above the high tide level or extending landward to a distance of 100 kilometers from shore, including coral reefs, intertidal zones, estuaries, coastal aquaculture, and seagrass communities (MA, 2003: 54).

5. Among the 63 most populated urban areas (with 5 million or more inhabitants in 2011), 39 are located in regions that are exposed to a high risk of at least one natural hazard; 72 per cent of them are located on or near the coast, and two thirds of them are in Asia (table 13). Among the six natural hazards analyzed, the greatest and most common hazard is flooding potentially affecting areas where 30 of the 63 agglomerations are located, followed by cyclones for 10 cities, droughts for another 9 cities, and earthquakes potentially affecting 6 cities.

Figure VI. Distribution of cities by population size in 2011 and risk of natural hazards



NOTE: The boundaries shown on this map do not imply official endorsement or acceptance by the United Nations.

6. The five most populated cities in 2011 located in areas with exposure to at least one major natural hazard are Tokyo, Delhi, Ciudad de México, New York-Newark and Shanghai. Tokyo is located in a region with high risk of floods and cyclones; Delhi is potentially affected by high risk of floods and medium risk of droughts; Ciudad de México has a high risk of floods, medium risk of landslides and low risk of droughts; the region of New York-Newark, is at high risk of floods and medium risk of cyclones; and Shanghai is at high risk of floods (table 13). Table 14 lists the top ten most populous cities in 2011 at high risk for each of the six types of natural disasters. Table 15 lists the top ten fastest growing cities in 2001-2011 located in areas exposed to each of these hazards.

7. Many cities are located in areas that are exposed to more than one natural hazard, but among the largest inhabited urban areas (with 750,000 inhabitants or more in 2011), only ten major cities are located in areas at high risk from three or more natural disasters (table 16). Manila (Philippines) with nearly 12 million inhabitants is the largest urban agglomeration at high risk of cyclones, floods and earthquakes. Four other large coastal cities in Asia are at similar high risks. Davao (Philippines) is potentially exposed to the risks of cyclones, floods, and earthquakes, while three other cities face additional high risks of landslides: Taipei, Kaohsiung, and Taichung (China). Another group of major in-land cities at high risks of multiple natural hazards are: Santiago and Valparaíso (Chile), Quito (Ecuador), Guwahati (India), and Managua (Nicaragua) - all located in areas at high risks of droughts, earthquakes and floods (as well as landslides and volcano in Quito).

8. One out of five cities among the most populous in 2011 is located in an area that is at low risk of natural disasters. 133 cities are located in areas not exposed to any natural disasters or are exposed only to low risks. Table 17 provides the list of the top ten most populated cities located in areas at low or no risk of natural disasters. Two megacities stand out: Moskva (Moscow) and Al-Qahirah (Cairo). For those cities, the natural hazards database from CIESIN does not record a high risk for any kind of natural disaster based on information from the 1985 to 2000 period.

The results of these initial analyses concerning the potential exposure of cities and urban agglomerations to natural disasters are subject to the following constraints:

- The geographical database for the six major natural disasters only covers the relatively short time period from 1980 to 2000. Data for floods are even more restricted to the period between 1985 and 2003. The analysis therefore likely underestimates the impact of rare, but perhaps more severe, natural disasters on urban areas.
- The spatial resolution for which floods, droughts, cyclones, earthquakes, landslides and volcanoes are recorded ranges from a 30 by 30 arc *second* grid to a 2.5 by 2.5 arc *degree* grid. These very different spatial resolutions make it difficult to assess absolute risks and compare hazards (Dilley et al., 2005: 26).
- Spatial information for the cities and urban agglomerations are only point coordinates, extended by a circular “buffer area”. More appropriate information would be the polygon coordinates of the city area, which is currently not available in the *World Urbanization Prospects*. The overlay between urban agglomerations and hazard areas may therefore be only partial.

TABLE 9. NUMBER OF CITIES BY NUMBER OF NATURAL HAZARDS, CLASS SIZE (2011)
AND MAJOR AREA

<i>1-5 million</i>	<i>Natural hazard risk (1980-2000)</i>				
	<i>No or low hazard</i>	<i>1 hazard</i>	<i>2 hazards</i>	<i>3+ hazards</i>	<i>Total</i>
Africa	29	16	2		47
Asia	55	97	37	4	193
Europe	35	13			48
Latin America and the Caribbean	17	33	4	1	55
Northern America	20	20	4		44
Oceania	3	3			6
Total	159	182	47	5	393
<i>5-10 million</i>	<i>No or low hazard</i>	<i>1 hazard</i>	<i>2 hazards</i>	<i>3+ hazards</i>	<i>Total</i>
Africa	1	1			2
Asia	11	10	5		26
Europe	2	1			3
Latin America and the Caribbean		1	2	1	4
Northern America	4	1			5
Oceania					0
Total	18	14	7	1	40
<i>10 million and over</i>	<i>No or low hazard</i>	<i>1 hazard</i>	<i>2 hazards</i>	<i>3+ hazards</i>	<i>Total</i>
Africa	2				2
Asia	2	5	5	1	13
Europe	2				2
Latin America and the Caribbean		4			4
Northern America			2		2
Oceania					0
Total	6	9	7	1	23
<i>1 million and over</i>	<i>No or low hazard</i>	<i>1 hazard</i>	<i>2 hazards</i>	<i>3+ hazards</i>	<i>Total</i>
Africa	32	17	2	0	51
Asia	68	112	47	5	232
Europe	39	14	0	0	53
Latin America and the Caribbean	17	38	6	2	63
Northern America	24	21	6	0	51
Oceania	3	3	0	0	6
Total	183	205	61	7	456

NOTE: No or low hazard represents a city that is not located in an area or a region that are in top three deciles of any six natural hazards analyzed.

TABLE 10. CITY POPULATION (IN MILLION) BY NUMBER OF NATURAL HAZARDS,
CLASS SIZE (2011) AND REGION

<i>1-5 million</i>	<i>Natural hazard risk (1980-2000)</i>				<i>Total</i>
	<i>No or low hazard</i>	<i>1 hazard</i>	<i>2 hazards</i>	<i>3+ hazards</i>	
Africa	68.0	31.1	4.9		104.0
Asia	107.3	177.9	72.1	6.9	364.3
Europe	57.8	23.5			81.3
Latin America and the Caribbean	34.3	69.9	6.6	1.6	112.5
Northern America	47.4	38.4	12.3		98.0
Oceania	7.6	7.2			14.8
Total	322.5	348.0	95.9	8.5	775.0
<i>5-10 million</i>	<i>No or low hazard</i>	<i>1 hazard</i>	<i>2 hazards</i>	<i>3+ hazards</i>	<i>Total</i>
Africa	8.8	5.1			13.9
Asia	77.3	70.4	38.2		185.9
Europe	12.1	9.0			21.1
Latin America and the Caribbean		8.7	14.6	6.0	29.4
Northern America	26.5	5.9			32.5
Oceania					0.0
Total	124.8	99.1	52.8	6.0	282.8
<i>10 million and over</i>	<i>No or low hazard</i>	<i>1 hazard</i>	<i>2 hazards</i>	<i>3+ hazards</i>	<i>Total</i>
Africa	22.4				22.4
Asia	35.3	74.7	93.3	11.9	215.2
Europe	22.2				22.2
Latin America and the Caribbean		65.9			65.9
Northern America			33.7		33.7
Oceania					0.0
Total	80.0	140.5	127.1	11.9	359.4
<i>1 million and over</i>	<i>No or low hazard</i>	<i>1 hazard</i>	<i>2 hazards</i>	<i>3+ hazards</i>	<i>Total</i>
Africa	99.2	36.1	4.9	0.0	140.3
Asia	220.0	323.0	203.6	18.8	765.3
Europe	92.2	32.5	0.0	0.0	124.7
Latin America and the Caribbean	34.3	144.5	21.2	7.7	207.7
Northern America	73.9	44.3	46.1	0.0	164.2
Oceania	7.6	7.2	0.0	0.0	14.8
Total	527.3	587.7	275.8	26.4	1,417.2

NOTE: No or low hazard represents a city that is not located in an area or a region that are in top three deciles of any six natural hazards analyzed.

TABLE 11. NUMBER OF CITIES (750,000 INHABITANTS OR MORE IN 2011) BY RISK DECILE, TYPE OF NATURAL HAZARD AND COASTAL STATUS

<i>Risk decile</i>	<i>Type of natural hazard</i>											
	<i>Cyclones</i>		<i>Droughts</i>		<i>Earthquakes</i>		<i>Floods</i>		<i>Landslides</i>		<i>Volcanoes</i>	
	<i>Coastal city</i>	<i>Inland city</i>	<i>Coastal city</i>	<i>Inland city</i>	<i>Coastal city</i>	<i>Inland city</i>	<i>Coastal city</i>	<i>Inland city</i>	<i>Coastal city</i>	<i>Inland city</i>	<i>Coastal city</i>	<i>Inland city</i>
No hazard	138	308	87	110	196	314	45	83	233	364	242	385
1st-4th decile	29	51	69	107	20	31	72	126				
5-7th decile	26	13	40	86	13	20	38	45	9	21		2
8-10th decile	50	18	47	87	14	25	88	136	1	5	1	3

TABLE 12. POPULATION FOR CITIES OR URBAN AGGLOMERATIONS OF 750,000 INHABITANTS OR MORE IN 2011 (IN MILLIONS) BY RISK DECILE, TYPE OF NATURAL HAZARD AND COASTAL STATUS

<i>Risk decile</i>	<i>Type of natural hazard</i>											
	<i>Cyclones</i>		<i>Droughts</i>		<i>Earthquakes</i>		<i>Floods</i>		<i>Landslides</i>		<i>Volcanoes</i>	
	<i>Coastal city</i>	<i>Inland city</i>	<i>Coastal city</i>	<i>Inland city</i>	<i>Coastal city</i>	<i>Inland city</i>	<i>Coastal city</i>	<i>Inland city</i>	<i>Coastal city</i>	<i>Inland city</i>	<i>Coastal city</i>	<i>Inland city</i>
No hazard	364	668	298	244	559	690	85	151	709	765	732	829
1st-4th decile	92	112	196	234	40	59	182	248				
5-7th decile	89	16	109	212	73	37	117	124	24	61		4
8-10th decile	190	39	131	147	63	50	350	313	2	10	2	3

TABLE 13. CITIES AND URBAN AGGLOMERATIONS (WITH 5 MILLION OR MORE INHABITANTS IN 2011) EXPOSED TO AT LEAST ONE MAJOR NATURAL HAZARD
(8-10TH RISK DECILES OF NATURAL DISASTERS)

	City	Population (in million)			Risk decile					
		2011	Location	Type	Cyclones	Droughts	Earthquakes	Floods	Landslides	Volcanoes
1	Tokyo, Japan	37.2	Coastal	Not Arid	8-10th	No hazard	5-7 th	8-10th	No hazard	No hazard
2	Delhi, India	22.7	Inland	Semiarid	No hazard	5-7th	No hazard	8-10th	No hazard	No hazard
3	Ciudad de México (Mexico City), Mexico	20.4	Inland	Not Arid	No hazard	1st-4th	No hazard	8-10th	5-7th	No hazard
4	New York-Newark, USA	20.4	Coastal	Not Arid	5-7th	No hazard	No hazard	8-10th	No hazard	No hazard
5	Shanghai, China	20.2	Coastal	Not Arid	8-10th	No hazard	No hazard	8-10th	No hazard	No hazard
6	São Paulo, Brazil	19.9	Inland	Not Arid	No hazard	No hazard	No hazard	8-10th	No hazard	No hazard
7	Dhaka, Bangladesh	15.4	Coastal	Not Arid	1st-4th	1st-4th	No hazard	8-10th	No hazard	No hazard
8	Kolkata (Calcutta), India	14.4	Coastal	Not Arid	5-7th	8-10th	No hazard	8-10th	No hazard	No hazard
9	Karachi, Pakistan	13.9	Coastal	Arid	1st-4th	8-10th	No hazard	1st-4th	No hazard	No hazard
10	Buenos Aires, Argentina	13.5	Coastal	Not Arid	No hazard	1st-4th	No hazard	8-10th	No hazard	No hazard
11	Los Angeles-Long Beach -Santa Ana, USA	13.4	Coastal	Semiarid	No hazard	8-10th	8-10th	1st-4th	5-7th	No hazard
12	Rio de Janeiro, Brazil	12.0	Coastal	Not Arid	No hazard	No hazard	No hazard	8-10th	No hazard	No hazard
13	Manila, Philippines	11.9	Coastal	Not Arid	8-10th	1st-4th	8-10th	8-10th	No hazard	No hazard
14	Osaka-Kobe, Japan	11.5	Coastal	Not Arid	8-10th	No hazard	5-7th	5-7th	No hazard	No hazard
15	Istanbul, Turkey	11.3	Coastal	Not Arid	No hazard	1st-4th	8-10th	1st-4th	No hazard	No hazard
16	Guangzhou, Guangdong, China	10.8	Coastal	Not Arid	8-10th	No hazard	No hazard	8-10th	No hazard	No hazard
17	Shenzhen, China	10.6	Coastal	Not Arid	8-10th	1st-4th	No hazard	8-10th	No hazard	No hazard
18	Jakarta, Indonesia	9.8	Coastal	Not Arid	No hazard	5-7th	1st-4th	8-10th	No hazard	No hazard
19	Seoul, Republic of Korea	9.7	Inland	Not Arid	8-10th	1st-4th	No hazard	8-10th	No hazard	No hazard
20	Wuhan, China	9.2	Inland	Not Arid	1st-4th	1st-4th	No hazard	8-10th	No hazard	No hazard
21	Lima, Peru	9.1	Coastal	Arid	No hazard	1st-4th	8-10th	5-7th	No hazard	No hazard
22	London, United Kingdom	9.0	Coastal	Not Arid	No hazard	1st-4th	No hazard	8-10th	No hazard	No hazard
23	Chennai (Madras), India	8.8	Coastal	Not Arid	1st-4th	8-10th	No hazard	5-7th	No hazard	No hazard
24	Bogotá, Colombia	8.7	Inland	Not Arid	No hazard	5-7th	5-7th	8-10th	5-7th	No hazard
25	Lahore, Pakistan	7.6	Inland	Semiarid	No hazard	8-10th	1st-4th	8-10th	No hazard	No hazard
26	Tehran, Iran (Islamic Republic of)	7.3	Inland	Semiarid	No hazard	5-7th	8-10th	5-7th	No hazard	No hazard
27	Dongguan, Guangdong, China	7.3	Coastal	Not Arid	8-10th	No hazard	No hazard	8-10th	No hazard	No hazard
28	Hong Kong, China, Hong Kong SAR	7.1	Coastal	Not Arid	8-10th	1st-4th	No hazard	8-10th	No hazard	No hazard
29	Chengdu, China	6.7	Inland	Not Arid	No hazard	No hazard	No hazard	8-10th	No hazard	No hazard
30	Foshan, China	6.5	Coastal	Not Arid	8-10th	No hazard	No hazard	8-10th	No hazard	No hazard
31	Ahmadabad, India	6.4	Coastal	Semiarid	No hazard	8-10th	No hazard	5-7th	No hazard	No hazard
32	Thành Phố Hồ Chí Minh (Ho Chi Minh City), Viet Nam	6.4	Coastal	Not Arid	No hazard	5-7th	No hazard	8-10th	No hazard	No hazard
33	Santiago, Chile	6.0	Inland	Semiarid	No hazard	8-10th	8-10th	8-10th	No hazard	No hazard
34	Philadelphia, USA	5.9	Coastal	Not Arid	5-7th	No hazard	No hazard	8-10th	No hazard	No hazard
35	Belo Horizonte, Brazil	5.5	Inland	Not Arid	No hazard	8-10th	No hazard	8-10th	No hazard	No hazard
36	Hangzhou, China	5.4	Coastal	Not Arid	5-7th	No hazard	No hazard	8-10th	No hazard	No hazard
37	Chittagong, Bangladesh	5.2	Coastal	Not Arid	5-7th	5-7th	5-7th	8-10th	No hazard	No hazard
38	Singapore, Singapore	5.2	Coastal	Not Arid	No hazard	No hazard	No hazard	8-10th	No hazard	No hazard
39	Luanda, Angola	5.1	Coastal	Semiarid	No hazard	8-10th	No hazard	1st-4th	No hazard	No hazard

TABLE 14. TOP 10 LARGEST CITY POPULATIONS IN 2011 AT 8-10TH RISK DECILES BY TYPE OF HAZARD

	<i>Cyclones</i>	<i>Droughts</i>	<i>Earthquakes</i>	<i>Floods</i>	<i>Landslides</i>	<i>Volcanoes</i>
1	Tokyo, Japan	Kolkata (Calcutta), India	Los Angeles-Long Beach-Santa Ana, USA	Tokyo, Japan	Taipei, China	Napoli (Naples), Italy
2	Shanghai, China	Karachi, Pakistan	Manila, Philippines	Delhi, India	Bandung, Indonesia	Quito, Ecuador
3	Manila, Philippines	Los Angeles-Long Beach-Santa Ana, USA	Istanbul, Turkey	Ciudad de México (Mexico City), Mexico	Quito, Ecuador	Bogor, Indonesia
4	Osaka-Kobe, Japan	Chennai (Madras), India	Lima, Peru	New York-Newark, USA	San Salvador, El Salvador	Malang, Indonesia
5	Guangzhou, Guangdong, China	Lahore, Pakistan	Tehran, Iran (Islamic Republic of)	Shanghai, China	Kaohsiung, China	
6	Shenzhen, China	Ahmadabad, India	Santiago, Chile	São Paulo, Brazil	San José, Costa Rica	
7	Seoul, Republic of Korea	Santiago, Chile	San Francisco-Oakland, USA	Dhaka, Bangladesh		
8	Dongguan, Guangdong, China	Belo Horizonte, Brazil	Kunming, China	Kolkata (Calcutta), India		
9	Hong Kong, China, Hong Kong SAR	Luanda, Angola	Nagoya, Japan	Buenos Aires, Argentina		
10	Foshan, China	Yangon, Myanmar	Izmir, Turkey	Rio de Janeiro, Brazil		

TABLE 15. TOP 10 FASTEST GROWING CITY POPULATIONS IN 2001-2011 AT 8-10TH RISK DECILES BY TYPE OF HAZARD

	<i>Cyclone</i>	<i>Drought</i>	<i>Earthquake</i>	<i>Flood</i>	<i>Landslide</i>	<i>Volcano</i>
1	Zhongshan, China	Nay Pyi Taw, Myanmar	Yinchuan, China	Can Tho, Viet Nam	San José, Costa Rica	Bogor, Indonesia
2	Xiamen, China	Sharjah, United Arab Emirates	Kathmandu, Nepal	Batam, Indonesia	San Salvador, El Salvador	Quito, Ecuador
3	Haikou, China	Dubayy (Dubai), United Arab Emirates	Karaj, Iran (Islamic Republic of)	Yongin, Republic of Korea	Quito, Ecuador	Malang, Indonesia
4	Jinjiang, China	Luanda, Angola	Sulaimaniya, Iraq	Zhongshan, China	Bandung, Indonesia	Napoli (Naples), Italy
5	Dongguan, Guangdong, China	Huambo, Angola	San José, Costa Rica	Xiamen, China	Kaohsiung, China	
6	Jiangmen, China	Hamah, Syrian Arab Republic	Quetta, Pakistan	Suzhou, Jiangsu, China	Taipei, China	
7	Vientiane, Lao People's Democratic Republic	Nanyang, Henan, China	Xining, China	Wuhu, Anhui, China		
8	Huizhou, China	Liaocheng, China	Bursa, Turkey	Hefei, China		
9	Jiaxing, China	Handan, China	Tangshan, Hebei, China	Kigali, Rwanda		
10	Putian, China	Zhengzhou, China	Davao, Philippines	Jinjiang, China		

TABLE 16. URBAN AREAS (WITH 750,000 OR MORE INHABITANTS IN 2011) EXPOSED TO THREE OR MORE NATURAL HAZARDS
 (8-10TH RISK DECILES OF NATURAL DISASTERS)

	City	Population (in million)			Risk decile					
		2011	Location	Type	Cyclones	Droughts	Earthquakes	Floods	Landslides	Volcanoes
1	Manila, Philippines	11.9	Coastal	Not Arid	8-10th	1st-4th	8-10th	8-10th	No hazard	No hazard
2	Santiago, Chile	6.0	Inland	Semiarid	No hazard	8-10th	8-10th	8-10th	No hazard	No hazard
3	Taipei, China	2.7	Inland	Not Arid	8-10th	No hazard	8-10th	8-10th	8-10th	No hazard
4	Quito, Ecuador	1.6	Inland	Not Arid	No hazard	8-10th	8-10th	8-10th	8-10th	8-10th
5	Davao, Philippines	1.6	Coastal	Not Arid	8-10 th	1st-4th	8-10th	8-10th	No hazard	No hazard
6	Kaohsiung, China	1.5	Coastal	Not Arid	8-10 th	No hazard	8-10th	5-7th	8-10th	No hazard
7	Taichung, China	1.2	Inland	Not Arid	8-10th	No hazard	8-10th	8-10th	5-7th	No hazard
8	Guwahati (Gauhati), India	1.0	Inland	Not Arid	No hazard	8-10th	8-10th	8-10th	No hazard	No hazard
9	Managua, Nicaragua	1.0	Inland	Not Arid	1st-4th	8-10th	8-10th	8-10th	No hazard	No hazard
10	Valparaíso, Chile	0.9	Coastal	Not Arid	No hazard	8-10th	8-10th	8-10th	No hazard	No hazard

 TABLE 17. TOP 10 LARGEST CITY POPULATIONS IN 2011 LEAST EXPOSED TO NATURAL HAZARDS
 (NO RISK OR 1-4TH RISK DECILE FOR ONLY ONE NATURAL DISASTER)

	City	Population (in million)			Risk decile					
		2011	Location	Type	Cyclones	Droughts	Earthquakes	Floods	Landslides	Volcanoes
1	Moskva (Moscow), Russian Federation	11.6	Inland	Not Arid	No hazard	No hazard	No hazard	No hazard	No hazard	No hazard
2	Al-Qahirah (Cairo), Egypt	11.2	Inland	Hyperarid	No hazard	No hazard	No hazard	1st-4th	No hazard	No hazard
3	Kinshasa, DR. of the Congo	8.8	Inland	Not Arid	No hazard	1st-4th	No hazard	1st-4th	No hazard	No hazard
4	Madrid, Spain	6.6	Inland	Semiarid	No hazard	1st-4th	No hazard	No hazard	No hazard	No hazard
5	Toronto, Canada	5.6	Inland	Not Arid	1st-4th	No hazard	No hazard	1st-4th	No hazard	No hazard
6	Ar-Riyadh (Riyadh), Saudi Arabia	5.5	Inland	Hyperarid	No hazard	No hazard	No hazard	1st-4th	No hazard	No hazard
7	Dallas-Fort Worth, USA	5.2	Inland	Semiarid	1st-4th	No hazard	No hazard	1st-4th	No hazard	No hazard
8	Xi'an, Shaanxi, China	5.0	Inland	Dry subhumid	No hazard	1st-4th	No hazard	1st-4th	No hazard	No hazard
9	Atlanta, USA	5.0	Inland	Not Arid	1st-4th	No hazard	No hazard	1st-4th	No hazard	No hazard
10	Peterburg (Saint Petersburg), Russian Federation	4.9	Inland	Coastal	Not Arid	No hazard	No hazard	No hazard	1st-4th	No hazard

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Department of Economic and Social Affairs
POPULATION DIVISION

DATA IN DIGITAL FORM

The *2011 Revision of the World Urbanization Prospects*, prepared by the United Nations Population Division, provides a comprehensive and consistent set of urban and rural population data for the world's countries and areas, as well as for urban agglomerations with more than 750,000 inhabitants in 2011. The data referring to urban and rural areas cover the period 1950-2050 and those referring to urban agglomerations cover the period 1950-2025. Detailed results from the *2011 Revision* are available for purchase in two sets of files, distributed on a single CD-ROM.

The files are prepared in Excel 2003, which is compatible with all versions since Excel 5.0/95. The CD-ROM version launches a navigation interface upon insertion that provides direct access to the files.

In the data sets, figures for 1950-2011 are estimates and those for years beyond 2011 are projections. To the exception of a selected set of annual indicators, estimates and projections are presented for years that are multiples of five. The urban, rural and city data presented are consistent with the medium variant of the *2010 Revision of World Population Prospects*, the official United Nations population estimates and projections at the national level. A short description of each set of files is presented below; the list of file names and their contents are presented in detail in tables A and B on the following pages.

(1) Urban and rural areas: Ten files present estimates and projections of the population in urban and rural areas as well as associated indicators. The data are presented for 231 countries and areas individually and for 33 country aggregates, including the world as a whole, the more and the less developed regions, the major world areas and selected additional aggregates. The projected values cover the period 2011-2050. The files present information on: (1) urban and rural population and percentage urban in 2011; (2) the percentage of the population residing in urban areas; (3) the urban population by country; (4) the rural population by country; (5) the total population by country; (6) the average annual rate of change of the urban population; (7) the average annual rate of change of the rural population; (8) the average annual rate of change of the total population; (9) the urbanization rate or average annual rate of change of the percentage urban, and (10) the average annual rate of change of the percentage rural. In addition to these data presented for five-year periods, annual time series are provided for the following five indicators: (10) the total population by country; (11) the urban population by country; (12) the rural population by country; (13) the percentage of the population residing in urban areas.

(2) Urban agglomerations: Eleven files present the estimates and projections of the population in urban agglomerations. The main set of files contains data only for urban agglomerations with 750,000 inhabitants or more in 2011. In addition to the latitude and longitude coordinates for each area name, they cover the following indicators: (1) the total population of each urban agglomeration (also included as annual time series); (2) the average annual rate of change of the population of each urban agglomeration; (3) the percentage of the urban population residing in each urban agglomeration; (4) the percentage of the total population residing in each urban agglomeration. Three more files provide data for specific sets of urban agglomerations. The first one presents the 30 largest urban agglomerations of the world ranked by population size over the period 1950-2025. The second provides 1950-2025 time series of the population of the 30 largest urban agglomerations in 2007. The third presents the population of the capital cities of each country for the year 2011. Lastly, four files (one per indicator and altogether) provide summary statistics for major areas, regions and countries (with a population of less than 100,000 in 2011) on the number of cities, the percentage of urban population and the urban population by size class of urban settlement.

The following citation should be used to indicate the source of any data derived from the data sets described above:

United Nations, Department of Economic and Social Affairs, Population Division (2012). *World Urbanization Prospects: The 2011 Revision*. CD-ROM Edition – Data in digital form (POP/DB/WUP/Rev.2011).

World Urbanization Prospects: The 2011 Revision - CD-ROM Edition
Table A: Schematic Contents of Dataset on Urban and Rural Areas, 1950-2050
 POP/DB/WUP/Rev.2011/1
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File number	File name	Indicator presented	Units	Geographical coverage	Number of countries or areas	Type of indicator	Reference date	Time period covered	Table in World Urbanization Prospects
File 0	WUP2011-F00-Locations.xls	Location list with codes (numerical and ISO3), description, major area, region and development group.		All countries and areas	231				
Five-year Indicators									
File 1	WUP2011-F01-Total_Urban_Rural.xls	Total, urban and rural population and percentage urban	Thousands and Per cent	All countries and areas	231	Stock indicator	1 July	2011	A.1
File 2	WUP2011-F02-Proportion_Urban.xls	Percentage of the population residing in urban areas	Per cent	All countries and areas	231	Stock indicator	1 July	1950, 1955, 1960,... 2045, 2050	A.2
File 3	WUP2011-F03-Urban_Population.xls	Total population residing in urban areas	Thousands	All countries and areas	231	Stock indicator	1 July	1950, 1955, 1960,... 2045, 2050	A.3
File 4	WUP2011-F04-Rural_Population.xls	Total population residing in rural areas	Thousands	All countries and areas	231	Stock indicator	1 July	1950, 1955, 1960,... 2045, 2050	A.4
File 5	WUP2011-F05-Total_Population.xls	Total population	Thousands	All countries and areas	231	Stock indicator	1 July	1950, 1955, 1960,... 2045, 2050	A.5
File 6	WUP2011-F06-Urban_Growth_Rate.xls	Average annual rate of change of the urban population	Per cent	All countries and areas	231	Period indicator	Average per year	1950-1955, 1955-1960,... 2040-2045, 2045-2050	A.6
File 7	WUP2011-F07-Rural_Growth_Rate.xls	Average annual rate of change of the rural population	Per cent	All countries and areas	231	Period indicator	Average per year	1950-1955, 1955-1960,... 2040-2045, 2045-2050	A.7

File number	File name	Indicator presented	Units	Geographical coverage	Number of countries or areas	Type of indicator	Reference date	Time period covered	Table in World Urbanization Prospects
File 8	WUP2011-F08-Total_Growth_Rate.xls	Average annual rate of change of the total population	Per cent	All countries and areas	231	Period indicator	Average per year	1950-1955, 1955-1960,... 2040-2045, 2045-2050	A.8
File 9	WUP2011-F09-Urbanization_Rate.xls	Average annual rate of change of the percentage urban	Per cent	All countries and areas	231	Period indicator	Average per year	1950-1955, 1955-1960,... 2040-2045, 2045-2050	A.9
File 10	WUP2011-F10-Rate_Proportion_Rural.xls	Average annual rate of change of the percentage rural	Per cent	All countries and areas	231	Period indicator	Average per year	1950-1955, 1955-1960,... 2040-2045, 2045-2050	A.10
Annual Indicators									
File 18	WUP2011-F18-Total_Population_Annual.xls	Total population	Thousands	All countries and areas	231	Stock indicator	1 July	1950, 1951, 1952,... 2049, 2050	
File 19	WWUP2011-F19-Urban_Population_Annual.xls	Total population residing in urban areas	Thousands	All countries and areas	231	Stock indicator	1 July	1950, 1951, 1952,... 2049, 2050	
File 20	WUP2011-F20-Rural_Population_Annual.xls	Total population residing in rural areas	Thousands	All countries and areas	231	Stock indicator	1 July	1950, 1951, 1952,... 2049, 2050	
File 21	WUP2011-F21-Proportion_Urban_Annual.xls	Percentage of the population residing in urban areas	Per cent	All countries and areas	231	Stock indicator	1 July	1950, 1951, 1952,... 2049, 2050	

Suggested citation: United Nations, Department of Economic and Social Affairs, Population Division (2010). *World Urbanization Prospects: The 2011 Revision. CD-ROM Edition - Data in digital form* (POP/DB/WUP/Rev.2011).

World Urbanization Prospects: The 2011 Revision - CD-ROM Edition
Table B: Schematic Contents of Dataset on Urban Agglomerations, 1950-2025
 POP/DB/WUP/Rev.2011/2
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File number	File name	Indicator presented	Units	Geographical coverage	Number of countries or areas	Type of indicator	Reference date	Time period covered	Table in World Urbanization Prospects
File 0	WUP2011-F00-Locations.xls	Location list with codes (numerical and ISO3), description, major area, region and development group.		All countries and areas	231				
Five-year Indicators									
File 11a	WUP2011-F11a-30_Largest_Cities.xls	Population of the 30 largest urban agglomerations ranked by population size at each point in time	Millions	The 30 most populous cities at each point in time	...	Stock indicator	1 July	1950, 1955,...., 2020, 2025	A.11
File 11b	WUP2011-F11b-30_Largest_Cities_in_2011_by_time.xls	Time series of the population of the 30 largest urban agglomerations in 2011	Millions	The 30 most populous cities in 2011	...	Stock indicator	1 July	1950, 1955,...., 2020, 2025	A.11
File 12	WUP2011-F12-Cities_Over_750K.xls	Population of each urban agglomeration	Thousands	All cities with 750,000 inhabitants or more in 2011	230	Stock indicator	1 July	1950, 1955,...., 2020, 2025	A.12
File 14	WUP2011-F14-Growth_Rate_Cities.xls	Average annual rate of change of the population of each urban agglomeration	Per cent	All cities with 750,000 inhabitants or more in 2011	230	Stock indicator	Average per year	1950-1955, 1955-1960,.... 2015-2020, 2020-2025	A.14
File 15	WUP2011-F15-Percentage_Urban_in_Cities.xls	Percentage of the urban population residing in each urban agglomeration	Per cent	All cities with 750,000 inhabitants or more in 2011	230	Stock indicator	1 July	1950, 1955,...., 2020, 2025	A.15

File number	File name	Indicator presented	Units	Geographical coverage	Number of countries or areas	Type of indicator	Reference date	Time period covered	Table in World Urbanization Prospects
File 16	WUP2011-F16-Percentage_Total_in_Cities.xls	Percentage of the total population residing in each urban agglomeration	Per cent	All cities with 750,000 inhabitants or more in 2011	230	Stock indicator	1 July	1950, 1955,...., 2020, 2025	A.16
File 17a	WUP2011-F17a-City_Size_Class.xls	Urban population, number of cities and percentage of urban population by size class of urban settlement	Various	All countries and areas with 100,000 inhabitants or more in 2011	197	Stock indicator	1 July	1950, 1955,...., 2020, 2025	A.17
File 17b	WUP2011-F17b-City_Size_Class-Number.xls	Number of cities classified by size class of urban settlement	Number of cities	All countries and areas with 100,000 inhabitants or more in 2011	197	Stock indicator	1 July	1950, 1955,...., 2020, 2025	A.17
File 17c	WUP2011-F17c-City_Size_Class-Percentage.xls	Percentage of urban population in cities classified by size class of urban settlement	Per cent	All countries and areas with 100,000 inhabitants or more in 2011	197	Stock indicator	1 July	1950, 1955,...., 2020, 2025	A.17
File 17d	WUP2011-F17d-City_Size_Class-Population.xls	Population in cities classified by size class of urban settlement	Thousands	All countries and areas with 100,000 inhabitants or more in 2011	197	Stock indicator	1 July	1950, 1955,...., 2020, 2025	A.17
File 23	WUP2011-F23-City_Risk_Natural-Disasters.xls	Coastal status, Type of drylands ecosystem, Number of multi-Hazards, Risk decile by type of hazard (cyclone, drought, earthquake, flood, landslide, volcano)	Risk decile	All cities with 750,000 inhabitants or more in 2011	230	Stock indicator		About 1980-2000	A.18

File number	File name	Indicator presented	Units	Geographical coverage	Number of countries or areas	Type of indicator	Reference date	Time period covered	Table in World Urbanization Prospects
Annual Indicators									
File 13	WUP2011-F13-Capital_Cities.xls	Population of capital cities in 2011	Thousands	Capital cities	231	Stock indicator	1 July	2011	A.13
File 22	WUP2011-F22-Cities_Over_750K_Annual.xls	Population of each urban agglomeration	Thousands	All cities with 750,000 inhabitants or more in 2011	231	Stock indicator	1 July	1950, 1951, 1952,..., 2024, 2025	

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