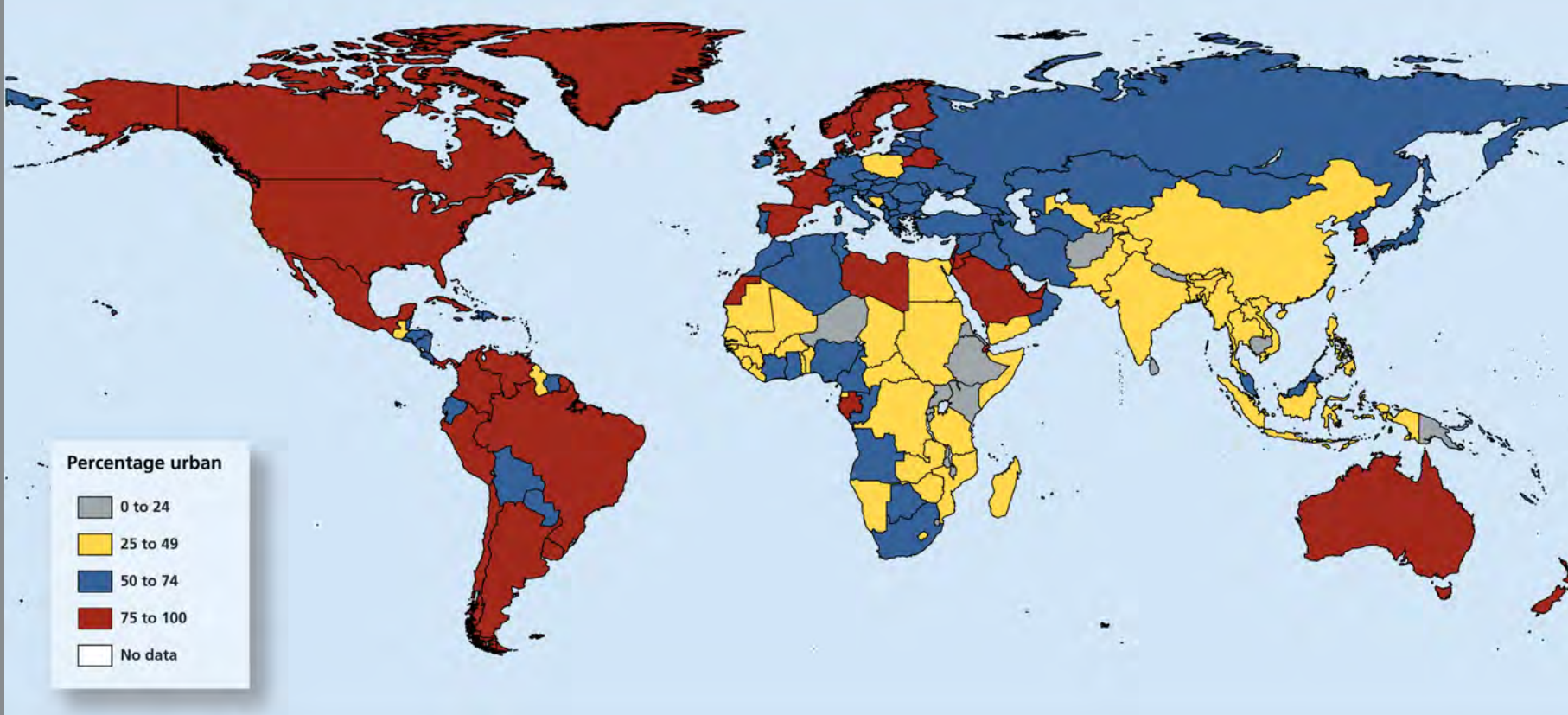




Urban Population, Development and the Environment 2011

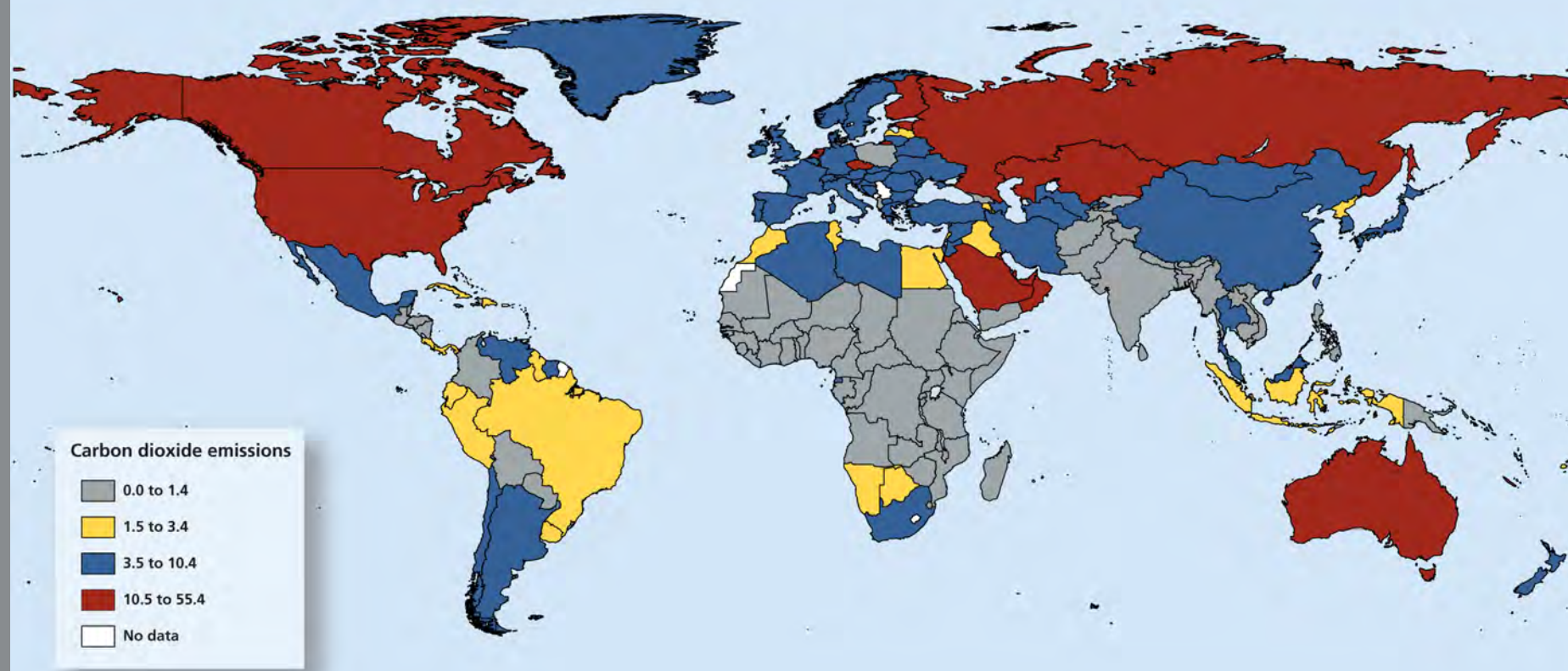
Country or area	Population					Environment					Development					
	Total population (thousands)	Urban population (thousands)	Proportion of total population in urban areas (percentage)	Average annual growth rate of urban population (percentage)	Population in large urban agglomerations (percentage of urban population)	Area under urban settlements (percentage of land area)	Population living in slums (percentage of urban population)	Urban population using improved sanitation facilities (percentage)	Urban population using improved drinking-water sources (percentage)	Carbon dioxide emissions (metric tons per capita)	Concentrations of particulate matter in the air (micrograms per cubic metre)	Economically active population in industry and services (percentage)	GDP constant international dollars	Motor vehicles in use (per 1,000 population)	Energy consumption (kg of oil equivalent per capita)	
World	6 895 889	3 479 867	50.1	1.9	38	2.7	35	76	96	5.8	51	60	9 547	184	1 826	
More developed regions *	1 235 900	928 853	75.0	0.7	38	3.8	79	100	12.0	21	96	28 670	560	4 826		
Less developed regions *	5 659 989	2 551 014	45.0	2.4	38	2.0	68	94	3.4	62	52	5 218	70	1 127		
Least developed countries *	832 330	242 769	29.0	4.0	35	0.4	71	49	8.0	78	35	1 252	24	533		
Africa	1 022 234	408 669	40.0	3.4	32	0.7	55	55	8.5	1.7	58	47	2 646	41	730	
Eastern Africa	324 044	76 453	24.0	3.8	27	0.5	66	37	8.5	0.2	40	25	1 071	24	446	
Burundi	8 383	922	11.0	5.8	—	2.2	64	49	8.3	0.0	31	11	356	6	—	
Comoros	735	207	28.0	2.5	—	5.4	69	50	9.1	0.2	34	30	1 074	33	—	
Djibouti	889	678	76.0	1.8	—	0.7	—	63	98	0.6	49	26	2 106	—	—	
Eritrea	5 254	1 134	22.0	5.2	—	0.3	—	52	74	0.1	71	26	527	11	138	
Ethiopia	82 590	13 820	17.0	3.5	21	0.4	82	29	98	0.1	59	23	848	3	393	
Kenya	40 513	8 986	22.0	4.0	50	0.7	55	27	83	0.3	30	29	1 428	21	465	
Madagascar	20 714	6 253	30.0	3.8	31	0.3	81	15	71	0.1	33	30	912	27	—	
Malawi	14 901	2 946	20.0	5.4	—	1.9	66	51	95	0.1	35	21	721	9	—	
Mauritius	1 299	544	42.0	0.5	—	59.7	—	93	100	3.1	18	92	11 658	159	—	
Mozambique	20 4	1 020	50.0	2.6	—	0.2	—	—	—	—	—	—	—	—	—	
Mozambique	23 391	8 990	38.0	4.5	18	0.3	80	38	77	0.1	26	19	804	13	416	
Réunion	846	795	94.0	1.7	—	16.2	—	—	—	—	—	—	—	—	—	
Rwanda	10 624	2 003	19.0	4.1	—	1.0	72	50	77	0.1	26	11	1 032	4	—	
Seychelles	87	48	55.0	1.4	—	26.0	—	—	—	—	—	—	17 786	173	—	
Somalia	9 331	3 494	37.0	3.5	43	0.0	74	52	67	0.1	31	34	—	—	—	
United Arab Emirates	33 425	4 444	13.0	4.4	36	0.7	67	38	91	0.1	12	25	1 105	7	—	
United Republic of Tanzania	44 841	11 830	26.0	4.6	28	0.4	66	32	80	0.1	22	24	1 237	73	446	
Zambia	8 121	4 673	57.0	2.8	31	0.6	57	59	87	0.2	39	75	1 299	18	553	
Zimbabwe	12 571	4 809	38.0	1.6	34	1.3	18	56	99	0.8	40	44	1 065	763	—	
Middle Africa	126 689	54 634	43.0	4.1	41	0.3	71	44	79	0.5	55	42	1 825	13	412	
Angola	19 082	11 164	58.0	4.3	52	0.1	87	86	60	1.4	55	31	5 278	40	609	
Cameroun	19 599	11 445	58.0	3.7	34	0.9	47	56	92	0.3	47	52	2 002	0	372	
Central African Republic	4 401	1 714	39.0	2.3	—	0.2	94	43	92	0.1	34	37	688	0	—	
Chad	11 227	3 102	28.0	4.6	—	0.1	91	23	67	0.0	34	34	1 181	—	—	
Congo	4 043	2 511	62.0	2.5	57	0.3	53	31	95	0.4	68	68	3 848	26	378	
Dem. Republic of the Congo	65 966	23 232	35.0	4.6	49	0.3	76	23	80	0.0	40	43	290	5	346	
Equatorial Guinea	700	278	40.0	3.0	—	0.8	66	—	—	7.5	7	35	28 857	—	—	
Gabon	1 505	1 295	86.0	2.4	—	0.3	39	33	95	1.4	7	74	13 094	—	1 431	
Sao Tome and Principe	165	103	62.0	3.0	—	4.9	—	—	—	—	—	—	4 653	2	—	
Northern Africa	209 459	107 141	51.0	2.5	28	1.0	33	88	90	2.6	89	72	5 141	67	803	
Algeria	35 468	23 585	66.0	2.5	12	0.9	—	98	85	4.1	69	79	7 421	112	1 078	
Egypt	81 121	35 208	43.0	2.0	42	2.4	17	97	100	2.3	87	75	5 151	43	857	
Libyan Arab Jamahiriya	6 355	4 950	78.0	2.2	22	0.6	—	—	—	9.3	76	97	14 985	291	2 895	
Morocco	31 951	18 608	58.0	2.3	33	2.5	13	83	98	1.5	27	75	4 081	71	474	
Sudan	43 552	17 466	40.0	4.1	30	0.2	94	55	64	0.3	159	48	2 007	28	372	
Tunisia	10 481	7 052	67.0	1.6	—	6.0	—	—	—	2.3	26	79	7 512	114	889	
Western Sahara	531	434	82.0	4.0	—	—	—	—	—	—	—	—	—	—	—	
Southern Africa	57 780	33 911	59.0	1.9	49	1.9	29	82	99	8.5	23	89	8 895	154	2 166	
Botswana	2 007	1 227	61.0	2.7	—	0.4	—	74	99	2.6	69	58	12 154	113	1 012	
Lesotho	2 171	584	27.0	3.8	—	2.1	35	40	97	—	46	61	1 333	—	—	
Namibia	2 283	867	38.0	3.5	—	0.2	34	60	99	1.5	48	66	5 821	109	823	
South Africa	50 133	30 933	62.0	1.8	54	3.7	29	84	99	9.0	22	94	9 333	159	2 756	
Swaziland	1 166	253	21.0	3.8	—	5.0	—	61	92	0.9	35	71	4 439	89	87	
Western Africa	304 261	136 465	45.0	3.9	31	0.7	61	35	81	0.5	54	54	1 611	26	629	
Benin	8 850	3 721	42.0	4.1	—	1.3	72	24	84	0.5	45	56	1 369	21	347	
Burkina Faso	16 469	4 231	26.0	6.9	46	1.1	60	33	95	0.1	64	8	1 078	11	609	
Cape Verde	496	303	61.0	2.7	—	4.3	—	—	—	8.5	0.6	—	83	3 309	94	—
Côte d'Ivoire	19 738	9 980	51.0	3.8	38	1.1	56	36	93	0.3	32	62	1 545	20	499	
Gambia	1 728	1 005	58.0	4.3	—	5.2	45	68	96	0.2	62	24	1 285	7	—	
Ghana	24 392	12 555	51.0	3.6	33	2.3	45	18	90	0.4	24	46	1 410	33	405	
Guinea	9 982	3 530	35.0	3.6	45	0.4	46	34	89	0.1	53	20	951	—	—	
Guinea-Bissau	1 515	455	30.0	2.5	—	1.0	83	49	83	0.2	47	21	973	33	—	
Liberia	3 994	1 910	48.0	4.9	—	0.3	—	25	79	0.2	31	38	360	3	—	
Mali	15 510	5 511	36.0	4.7	36	0.3	66	45	81	0.0	112	25	1 077	9	—	
Mauritania	3 460	1 434	41.0	2.9	—	0.1	—	50	52	0.6	68	50	1 751	—	—	
Niger	15 512	2 654	17.0	4.4	39	0.1	82	34	96	0.1	96	17	626	—	—	
Nigeria	158 423	78 899	50.0	3.8	30	1.6	66	36	75	0.6	46	75	2 001	31	735	
Saint Helena	4	2	50.0	—	—	—	—	—	—	—	—	—	—	—	—	
Senegal	12 434	5 269	42.0	3.2	53	0.9	38	69	92	0.5	81	30	1 650	23	234	
Sierra Leone	5 868	2 253	38.0	3.5	—	1.2	97	24	86	0.2	38	40	734	5	—	
Togo	6 028	2 619	43.0	4.1	57	2.7	62	24	87	0.2	29	47	772	2	397	
Asia	4 164 252	1 756 265	42.0	2.3	40	3.2	33	68	96	4.2	68	50	5 995	81	1 263	
Eastern Asia	1 573 970	789 715	50.0	2.2	43	3.4	31	65	98	5.8	67	45	8 929	94	1 871	
China	1 341 335	629 824	47.0	2.6	38	2.8	33	58	98	5.0	66	39	6 200	37	1 598	
China, Hong Kong SAR ^d	7 053	7 053	100.0	0.5	100	—	—	—	—	5.8	—	—	39 255	73	2 026	
China, Macao SAR ^d	544	544	100.0	2.3	—	—	—	—	—	3.0	—	—	54 622	161	—	
Dem. People's Rep. of Korea	24 366	14 660	60.0	0.5	20	0.8	—	100	100	3.0	59	77	77	77	—	
Japan	126 536	84 568	67.0	0.2	74	28.6	—	100	100	3.0	29	85	4 972	23	629	
Mongolia	2 756	1 709	62.0	—	—	0.1	58	64	97	4.0	111	82	3 198	72	1 193	
Republic of Korea	48 1															

Urban population as percentage of the total population, 2010



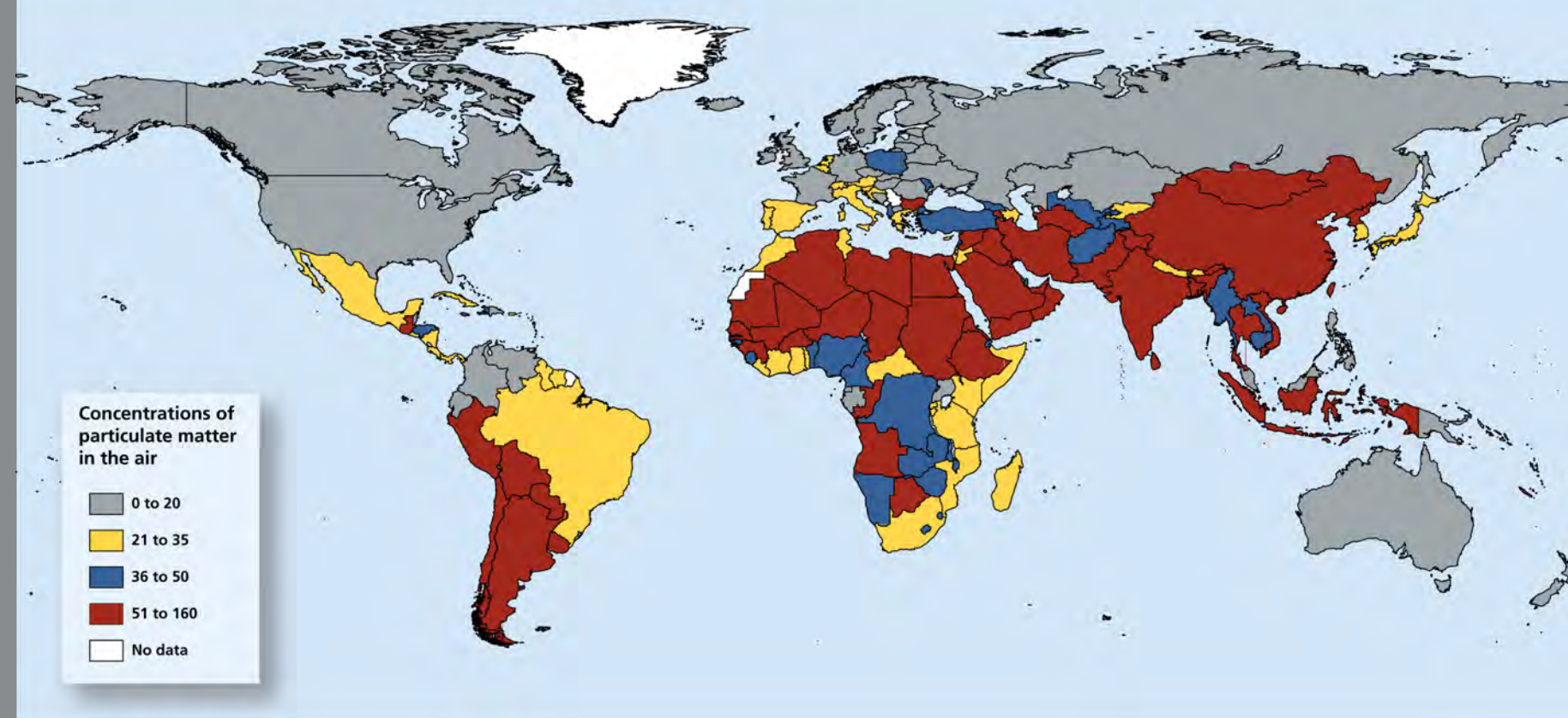
Note: The boundaries shown on this map do not imply official endorsement or acceptance by the United Nations.

Carbon dioxide emissions (metric tons per capita), 2007



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

Concentrations of particulate matter in the air (micrograms per cubic metre), 2008



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

Urban Population, Development and the Environment 2011

Total population. In 2010, the world's population reached 6.9 billion persons. It is expected to attain 9.3 billion in 2050 and 10.1 billion by the end of the century. Since 1950, the population of the more developed regions increased by 0.4 billion and attained 1.2 billion persons, while the population of the less developed regions grew by 3.9 billion to attain 5.7 billion persons in 2010. Ninety-seven per cent of the growth of the world's population between 2050 and 2100 will be absorbed by the less developed regions, whose population is projected to expand from 8.0 billion in 2050 to 8.8 billion in 2100.

Urban population. The proportion of the population living in urban areas grew from 29 per cent in 1950 to 50 per cent in 2010. By 2050, 69 per cent of the global population, or 6.3 billion people, are expected to live in urban areas. The populations of Europe, Latin America and the Caribbean, Northern America and Oceania are already over 70 per cent urban. Africa and Asia are the least urbanized regions of the world, with a proportion urban of 40 per cent and 42 per cent, respectively. By 2050 a majority of the population in these regions is projected to live in urban areas. Currently, the average annual rate of growth of the urban population in the less developed regions (2.4 per cent) is more than three times that of the more developed regions (0.7 per cent). Africa had the world's highest rate of urban population growth, averaging 3.4 per cent per year during 2005-2010. Growth in the urban

areas of the less developed regions is projected to account for almost all of total world population growth between 2010 and 2050 (94 per cent). Although urban growth rates have been decreasing in most countries, every year a larger absolute number of persons is being added to the world's urban population (about 64 million during 2005-2010).

Land area occupied by human settlements. The land area occupied by human settlements is in most countries disproportionate to the percentage urban in the population. Data around 2000 shows that, globally, the surface area of urban settlements represented only 2.7 per cent of the total land area, in contrast to a percentage urban of 44.5 per cent of the world population at the time. In 51 countries, the urban extent was lower than 1%. On the other extreme of the distribution, the ratio of the land area of urban settlements to total surface area was very high (more than 75%) in 12 countries, all of them insular countries or states: Anguilla, Barbados, Bahrain, Bermuda, Cayman Islands, Guam, Malta, Martinique, Nauru, Saint Kitts and Nevis, Singapore, and United States Virgin Islands.

Urban population in slums. Despite progress over the last two decades, still more than one third (35 per cent) of the urban population of the less developed regions was living in slums in 2005-2007. In the least developed countries 71 per cent of the urban dwellers lived in slums. This proportion is very high in sub-Saharan Africa (except for Southern Africa), ranging from 61 per cent in Western Africa

to 71 per cent in Middle Africa. It is also very high in Sudan, where 94 per cent of the urban dwellers live in slums. In Asia this proportion is 33 per cent, close to the average of the less developed regions, and 22 percentage points lower than in Africa. Twenty-five per cent of the urban population of Western Asia lives in slums, a percentage significantly lower than the world average. However, there is much variability across countries. For instance, the proportion of the urban population living in slums is 11 per cent in the Syrian Arab Republic as opposed to 79 per cent in Lao People's Democratic Republic. The average proportion of urban slum population is relatively low in Latin America and the Caribbean (26 per cent), where it varies from 18 per cent in Central America to 38 per cent in the Caribbean. Within the Caribbean region, this proportion varies greatly, from 2 per cent in Martinique to 70 per cent in Haiti.

Access to improved water sources and sanitation in urban areas. Lack of access to safe drinking water and adequate sanitation are typical characteristics of urban slums. Access to safe water and adequate sanitation are among the indicators used to monitor progress toward environmental sustainability. Globally, 134 million urban dwellers (4 per cent) lacked access to an improved water supply in 2008 and 806 million (24 per cent) lacked adequate sanitation services. Most of these people lived in informal, overcrowded urban settlements in developing countries, particularly in Africa and Asia. In the least developed countries, 20 per cent of the urban population lacked access to an improved water supply and 51 per cent lacked adequate sanitation. Little progress was made in this group of countries since 1990.

Carbon dioxide (CO₂) emissions. The atmospheric concentration of carbon dioxide (CO₂), the

main gas linked to global warming, has increased substantially in the course of economic and industrial development. CO₂ emissions are largely determined by a country's energy use and production systems, its transportation system, its agricultural and forestry sectors and the consumption patterns of the population. In addition to the impact of CO₂ and other greenhouse gases on the global climate, the use of carbon-based energy also affects human health through local air pollution. Currently, CO₂ emissions per person are markedly higher in the more developed regions (12 metric tons per capita) than in the less developed regions (3.4 metric tons per capita) and are lowest in the least developed countries (0.3 metric tons per capita).

Concentrations of particulate matter in the air. Industrial and household activities as well as unpaved roads produce fine liquid or solid particles such as dust, smoke, mist, fumes, or smog, found in air or emissions. Prolonged exposure to particulates is detrimental to health and sudden rises of concentration may immediately result in fatalities. Concentration of particulate matter in the air of medium and large cities is inversely correlated with the level of development. Thus, the concentration of particulate matter in the air in Africa (58 micrograms per cubic meter) is 6.5 times greater than in Europe and Northern America (9 micrograms per cubic meter) and varies widely among countries, from 7 micrograms per cubic metre in Belarus to 159 micrograms per cubic metre in Sudan.

Employment in industry and services. A fundamental aspect of economic development is the increasing concentration of activity in high value-added sectors of industry and services, which are in turn mostly concentrated in urban areas. In most regions, particularly in developing countries,

the share of the economically active population in services has been rising at the expense of agricultural employment. In several high-income and developing countries, the expansion of the labour force in services has taken place at the expense of industrial employment. Currently, employment in industrial and service sectors accounts, on average, for approximately 96 per cent of the economically active population in the more developed regions. In contrast, non-agricultural employment represents just over half (52 per cent) of the economically active population of developing countries. This proportion varies from 25 per cent in Eastern Africa to 87 per cent in South America. In the least developed countries, the share of the labour force in industry and services is only 35 per cent.

Gross domestic product at purchasing power parity (GDP PPP) per capita. After a period of significant global economic growth, the world financial crisis of 2007-2010 significantly depressed the growth of GDP and led to its contraction in many countries. The GDP per capita at purchasing power parity (in constant 2005 international dollars) increased, from 2000 to 2007, by 13 per cent in the high-income countries and 43 per cent in the low- and middle-income countries combined. In 2007-2009, per capita GDP fell by 4 per cent in the high-income countries, but it increased by 6 per cent in the low- and middle-income countries. Nonetheless, the income gap between the rich and poor countries remains wide. Average GDP per capita in the less developed regions stands at \$5,218 (at PPP in constant 2005 dollars), as compared to \$28,670 in the more developed regions. The average GDP per capita of the least developed countries is only \$1,252, equivalent to 4.4% of the average income of the more developed regions.

Motor vehicles in use. Ownership of passenger cars has increased considerably worldwide and the transportation of goods and services by road has intensified. Rising demand for roads and vehicles is associated with economic growth but also contributes to urban congestion, air and noise pollution, increasing health hazards, traffic accidents and injuries. Motor vehicle use also places pressure on the environment, since transportation now accounts for about a quarter of the world's energy use and half of the global oil consumption, and is a major contributor to greenhouse gas emissions. In the more developed regions there are more than 500 motor vehicles per 1000 population. In the less developed regions this ratio is only 70 vehicles per 1000 population, but it is increasing more rapidly than in the more developed regions.

Consumption of energy. Although access to energy is essential for development, its consumption has a major impact on the environment. Energy generated by the combustion of fossil fuels and biomass often results in air pollution, affecting the health of people and ecosystems. This type of combustion is also the main source of greenhouse gases and rising atmospheric temperature. Per capita energy consumption is several times greater in the more developed countries than in the less developed countries, but the variation within each group is large. For instance, in 2008, the United States consumed 75 tons of oil equivalent per capita, while in the European Union consumption was about 50 per cent lower. From 2000 to 2008, energy consumption per capita decreased in Japan and the United States and stabilized in the European Union. In the less developed regions, per capita energy consumption in general increased, but in varying degrees, e.g. 72 per cent in China as compared to only 3 per cent in sub-Saharan Africa.

Conferences

The International Conference on Population and Development (ICPD) adopted the Programme of Action¹ in 1994, which recommended, inter alia, the following actions to address the interactions between population, environment and development:

- integrate demographic factors into environmental impact assessments and other planning and decision-making processes aimed at achieving sustainable development;
- implement measures for poverty eradication, with special attention to income-generation and employment strategies directed at the rural poor and those living within or on the edge of fragile ecosystems;
- utilize demographic data to promote sustainable resource management, especially of ecologically fragile systems;
- modify unsustainable consumption and production patterns through economic, legislative and administrative measures, as appropriate, aimed at fostering sustainable resource use and preventing environmental degradation;
- implement policies to address the ecological implications of future population increases, particularly in ecologically vulnerable areas and urban agglomerations.

The United Nations Conference on Environment and Development, which adopted Agenda 21² in 1992, identified a number of key objectives relative to population, including:

- to incorporate demographic trends in the global analysis of environment and development issues;

- to develop a better understanding of the relationships among demographic dynamics, technology, cultural behaviour, natural resources and life support systems;
- to assess human vulnerability in ecologically sensitive areas and centres of population to determine the priorities for action at all levels;
- to implement population programmes along with national resource management and development programmes at the local level to ensure the sustainable use of natural resources, improve the quality of people's lives and enhance environmental quality.

The key actions for the further implementation of the ICPD Programme of Action³, the Programme for the Further Implementation of Agenda 21⁴ and the Plan of Implementation of the World Summit on Sustainable Development⁵, adopted in Johannesburg in 2002, made further recommendations for changing unsustainable patterns of consumption and production as well as for promoting sustainable development. The recommendations contained in those documents set priorities for action to eradicate poverty, combat environmental threats to health and promote sustainable development in the rural and urban areas of the world.

¹ Report of the International Conference on Population and Development, Cairo, 5-13 September 1994 (United Nations Population Division, Sales No. E/90.XII.18).

² Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992, vol. I, Resolutions Adopted by the Conference (United Nations publication, Sales No. E/92.XI.8).

³ Resolution S-21/2.

⁴ Resolution S-19/2, annex.

⁵ Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August-4 September 2002 (United Nations publication, Sales No. E.03.XI.A.1 and corrigendum, chap. I, resolution 2, annex).

Participation in multilateral treaties

To address global environmental issues, many Governments have signed and ratified¹ international treaties launched in the wake of the 1972 United Nations Conference on the Human Environment and the 1992 United Nations Conference on Environment and Development. The following are some of the major multilateral environmental treaties currently in force:

The Vienna Convention for the Protection of the Ozone Layer (1985), ratified by 196 countries, aims to protect human health and the environment by promoting research on the effects of changes in the ozone layer and on alternative substances and technologies, monitoring the ozone level and taking measures to control the activities that produce adverse effects.

The Montreal Protocol on Substances that Deplete the Ozone Layer (1987), ratified by 196 countries, requires that countries help protect the earth from excessive ultraviolet radiation by cutting chlorofluorocarbon consumption by specific amounts and target dates, with allowances for increases in consumption by developing countries. The Protocol contained flexible implementation schemes and evaluation procedure and recognized the principle of "common but differentiated" responsibilities for developed and developing countries. The Protocol has contributed to reducing levels of ozone-depleting substances.

The United Nations Framework Convention on Climate Change (1992), ratified by 195 countries, aims to stabilize atmospheric concentrations of greenhouse gases at levels that will prevent human activities from interfering dangerously with the global environment. The Convention was not binding and did not establish targets or deadlines.

The Kyoto Protocol to the United Nations Framework Convention on Climate Change (1997), ratified by 152 countries, entered into force in 2005. It commits 36 developed countries to reduce their greenhouse gas emissions by

2012 to at least 5 per cent below emission levels of 1990. In December 2007 in Bali, Indonesia, the United Nations Climate Change Conference adopted Bali roadmap, which charts the course for a new negotiating process to be concluded by 2009 that will ultimately lead to a post-2012 international agreement on climate change.

The United Nations Convention on the Law of the Sea (1982), ratified by 162 countries, went into effect in 1994 and created a comprehensive legal regime for seas and oceans. Rules were established for environmental standards and enforcement provisions, while international rules and national legislation to prevent and control marine pollution were developed. The Convention afforded all countries the right to manage marine resources within their 200 nautical mile Exclusive Economic Zone. For many developing countries, however, it is difficult to enforce regulations over such a vast expanse.

The Convention on Biological Diversity (1992), ratified by 193 countries, promotes conservation of biodiversity among nations through scientific and technological cooperation, access to financial and genetic resources and transfer of ecologically sound technologies. The major objectives are to conserve biodiversity, ensure its sustainable use and guarantee the fair and equitable sharing of its benefits.

The United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa (1994), ratified by 194 countries, entered into force in 1996. The only internationally legally binding framework stemming from a direct recommendation of the Agenda 21, the Convention promotes national action programmes supported by international cooperation and partnership arrangements.

Source: United Nations Treaty Collection. Status as of 22 August 2011. Data available online at: untreaty.un.org

¹ Ratification including acceptance, approval, accession or succession. Ratification is the act whereby a State indicates its consent to being bound to a treaty if the parties intend to show their consent by such an act.



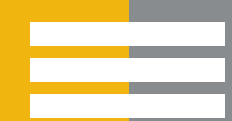
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