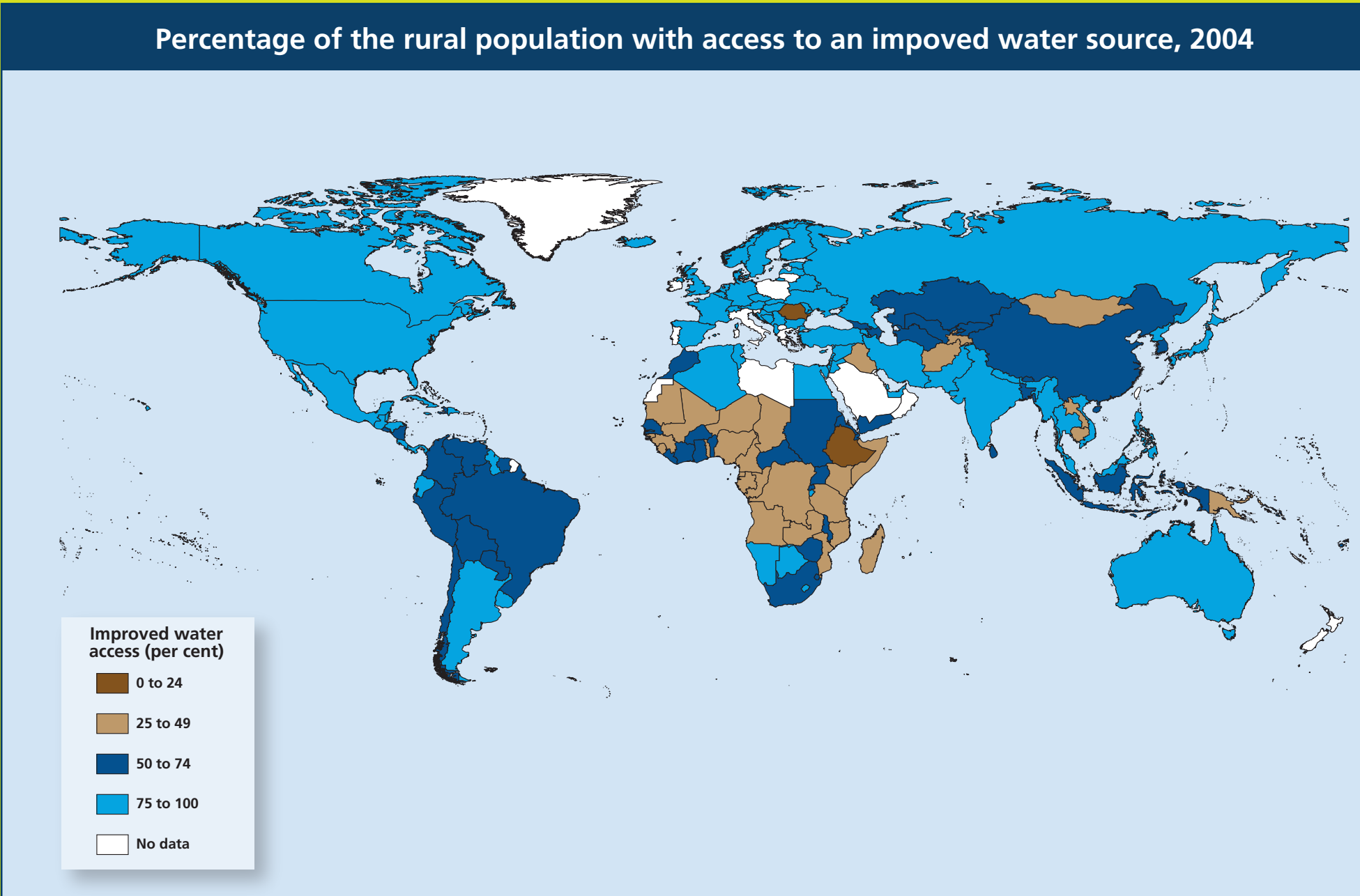
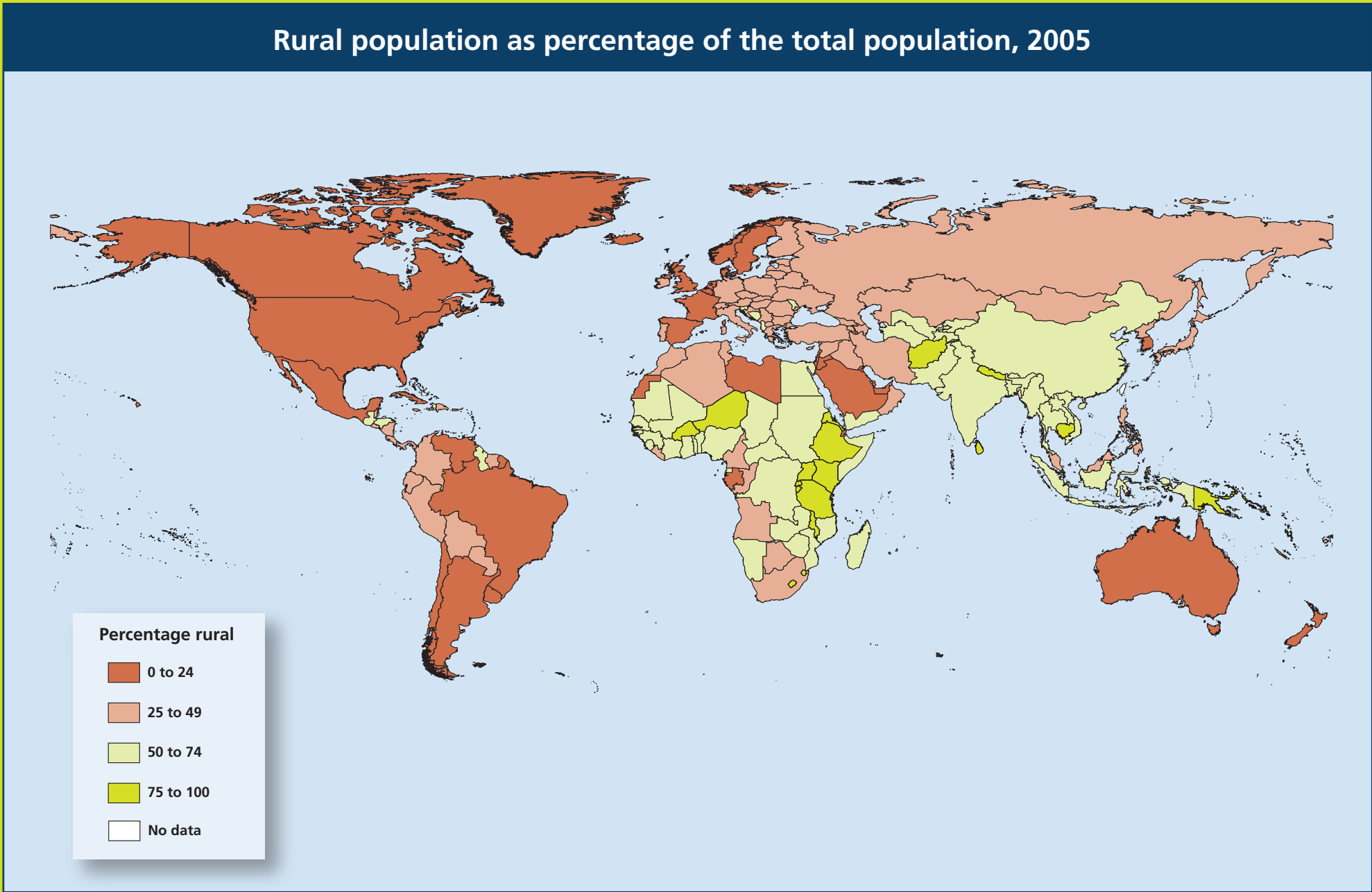




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Country or area	Total population (thousands)	Land area (km ²)	Cropland (percentage of land area)	Forest area (percentage of land area)	Irrigated area (percentage of cropland)	Rural population				Percentage with access to improved water sanitation	Percentage with access to improved water source	Agricultural labour intensity (per km ² of crop- land)	GDP per capita (PPP) (inter- national equivalent of US dollars)	Value added by agriculture (as per- centage of GDP)	Energy use (kg of oil equivalent per capita)	Fertilizer use (kg per km ² of cropland)				
						Number of rural-dwellers (thousands)	As percentage of total popu- lation	Average annual growth rate (percen- tage)	Percentage with access to improved water sanitation											
																	2005	2005	2004	2004
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)				
World	6 514 751	129 830 789	12	31	18	3 350 116	51	0.5	38	72	90	9 462	3	1 713	11 123					
More developed regions ^a	1 215 636	49 068 852	12	37	9	315 788	26	-0.3	93	94	6	28 296	3	4 937	11 840					
Less developed regions ^b	5 299 115	80 761 937	11	26	24	3 034 328	57	0.6	33	70	143	5 181	12	981	10 656					
Least developed countries ^c	766 816	20 169 840	8	28	11	559 820	73	1.8	29	51	152	1 421	26	292	1 281					
Africa	922 011	29 360 490	8	22	6	572 618	62	1.7	23	48	93	2 503	12	712	2 721					
Eastern Africa	292 539	6 048 870	9	27	5	227 768	78	2.2	30	40	189	1 124	13	422	684					
Burundi	7 859	25 680	53	6	2	7 110	90	3.0	35	77	248	671	35	...	81					
Comoros	798	2 230	59	2	..	575	72	2.7	29	82	205	1 500	51	...	227					
Djibouti	804	23 180	..	0	..	112	14	-1.7	50	59	..	2 130	4	...	...			
Eritrea	4 527	101 000	6	15	4	3 648	81	3.7	3	57	284	1 078	23	...	248					
Ethiopia	78 986	1 000 000	12	13	2	66 299	84	2.3	7	11	217	978	47	275	87					
Kenya	35 599	569 140	9	6	2	28 215	79	2.4	41	46	241	1 194	27	488	746					
Madagascar	18 643	581 540	6	22	31	13 329	71	2.4	26	35	175	922	28	...	203					
Mali	13 226	94 080	28	36	2	10 933	63	2.1	61	68	184	651	35	...	2 180					
Mauritius	1 241	2 030	52	18	21	716	58	1.0	94	100	53	12 742	6	...	9 128					
Mozambique	20 533	784 090	6	25	3	13 449	65	1.3	19	26	176	1 181	22	427	140					
Réunion	785	2 500	16	31	..	60	8	-4.1	...	...	271	1 181	42	...	1 105			
Rwanda	9 234	24 670	60	19	1	7 614	82	1.5	38	69	277	1 181	42	...	1 105					
Seychelles	86	460	15	87	..	40	47	0.3	100	75	429	16 291	3	...	243					
Somalia	8 196	627 340	2	11	19	5 312	65	2.4	14	27	283	...	...	...	...	
Uganda	28 947	197 100	37	18	0	25 315	87	3.1	41	56	135	1 447	33	...	35					
United Republic of Tanzania	38 478	883 590	6	40	4	29 165	76	2.1	43	49	298	707	45	500	1 328					
Zambia	11 478	743 390	7	57	3	7 461	65	1.8	52	40	58	1 040	19	616	1 232					
Zimbabwe	13 120	386 850	9	45	5	8 413	64	0.1	47	72	106	2 048	18	714	2 252					
Middle Africa	112 505	6 489 510	4	45	1	67 617	60	1.9	23	35	107	1 411	8	377	220					
Angola	16 095	1 246 700	3	47	2	7 411	46	0.8	16	40	126	2 313	7	607	103					
Cameroon	17 795	465 400	15	46	0	8 138	46	0.5	43	44	52	2 109	21	399	318					
Central African Republic	4 191	622 980	3	37	0	2 596	62	1.5	12	61	6	1 179	54	...	30					
Chad	10 146	1 259 200	3	9	1	7 583	75	3.1	4	43	79	1 464	23	...	482					
Congo	3 610	341 500	2	66	0	1 438	40	1.5	25	27	105	1 393	5	301	43					
Dem. Republic of the Congo	58 741	2 267 050	3	59	0	39 881	68	2.3	25	29	178	701	46	...	291					
Equatorial Guinea	484	28 050	8	58	...	296	61	2.3	46	42	62	17 987	3	...	...			
Gabon	1 291	257 670	2	85	1	212	16	-2.1	30	47	41	7 060	5	1 333	23					
Sao Tome and Principe	153	960	57	28	18	64	42	-0.4	20	73	85	...	15	...	...			
Northern Africa	189 562	8 114 390	6	9	18	94 373	50	0.9	53	81	54	4 641	13	784	10 184					
Algeria	32 854	2 381 740	3	1	7	12 050	37	-0.3	82	80	34	7 062	8	1 016	1 058					
Egypt	72 850	995 450	4	0	...	41 788	57	1.8	58	97	247	4 391	15	795	63 340					
Libyan Arab Jamahiriya	5 918	1 759 540	1	0	22	1 361	23	1.5	96	...	4	...	...	3 137	3 515			
Morocco	30 495	446 300	21	10	15	13 732	45	0.4	52	56	46	4 555	14	380	13 084					
Sudan	36 900	2 376 000	7	28	11	21 857	59	0.5	24	64	45	2 045	34	488	228					
Tunisia	10 105	155 360	32	7	8	3 501	35	0.0	65	82	20	8 312	12	871	20 011					
Western Sahara	440	266 000	...	...	...	85	19	10.2	...	...	...	...	...	...	...
Southern Africa	54 900	2 652 040	7	11	9	23 987	44	0.0	43	74	15	10 438	7	2 616	4 192					
Botswana	1 836	566 730	1	21	0	783	43	-0.6	25	90	93	11 683	2	1 028	11					
Lesotho	1 981	30 350	11	0	1	1 520	77	0.1	32	76	83	3 066	16	...	3 383					
Namibia	2 020	823 290	1	9	1	1 311	65	0.6	13	81	37	7 678	12	671	125					
South Africa	47 939	1 214 470	13	8	10	19 519	41	-0.1	46	73	10	10 942	3	2 758	4 500					
Swaziland	1 125	17 200	11	31	26	853	76	1.0	44	54	62	4 896	12	...	3 646					
Western Africa	272 505	6 055 680	14	12	1	158 873	58	1.6	26	42	64	1 336	24	599	346					
Benin	8 490	110 620	26	21	0	5 093	60	2.7	11	57	54	1 123	32	301	0					
Burkina Faso	13 933	273 600	18	25	1	11 379	82	2.8	6	54	117	1 186	...	...	462			
Cape Verde	507	4 030	12	21	6	216	43	0.6	19	73	82	5 831	7	...	449					
Côte d'Ivoire	18 585	318 000	22	33	1	9 880	53	0.5	29	74	45	1 579	22	379	234					
Gambia	1 617	10 000	32	47	1	746	46	1.1	46	77	180	1 802	33	...	250					
Ghana	22 535	227 540	28	24	0	11 772	52	0.8	17	64	94	2 433	37	379	249					
Guinea	9 003	245 720	7	27	5	6 032	67	1.3	11	35	200	2 350	20	...	137					
Guinea-Bissau	1 597	28 120	20	74	5	1 124	70	3.1	23	49	98	821	60	...	438					
Liberia	3 442	96 320	6	33	0	1 442	42	0.5	7	52	143	...	66	...	...			
Mali	11 611	1 220 190	4	10	5	8 074	70	2.2	39	36	102	1 203	37	...	886					
Mauritania	2 963	1 025 220	0	0	...	1 766	60	2.7	8	44	138	2 314	24	...	580					
Niger	13 264	1 266 700	11	1	1	11 103	84	3.5	4	36	34	827	40	...	21					
Nigeria	141 356	910 770	37	12	1	76 086	54	1.2	36	31	45	1 095	23	717	344					
Saint Helena	6	310	13	...	...	4	61	1.6	...	...	25	...	...	...	...	
Senegal	11 770	192 530	13	45	5	6 880	58	2.3	34	60	134	1 763	4	240	2 206					
Sierra Leone	5 586	71 620	9	38	5	3 529	63	3.8	30	46	179	797	46	...	50					
Togo	6 239	54 390	48	7	0	3 746	60	1.8	15	36	47	1 461	42	...	443					
Asia	3 938 020	30 973 600	17	19	36	2 372 911	60	-0.3	34	76	199	6 197	9	1 109	15 924					
Eastern Asia	1 522 472	11 477 620	11	21	48	845 236	56	-0.8	32	69	419	9 392	4	1 584	36 083					
China	1 312 979	9 326 410	12	21	48	782 320	60	-0.8	28	67	452	6 716	13	2 232	37 934					
China, Hong Kong SAR ^d	7 057	1 042	...	...	...	...	...	...	...	...	...	34 360	0	2 452	...	
China, Macao SAR ^e	473	28	...	...	...	...	...	...	...	...	...	35 580	0	...	...			
Dem. People's Rep. of Korea	23 616	120 410	25	51	50	9 069	38	-0.1	60	100	109	...	...	866	9 179			
Japan	127 897	364 500	13	68	55	43 533	34	-0.3	100	100	46	30 707	2	4 172	18 168					
Mongolia	2 581	1 566 500	1	7	7	1 117	43	0.8	37	30	25	2 113	24	...	332					
Republic of Korea	47 870																			



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Total population. In 2005, the world population reached 6.5 billion persons, and it is expected to grow to 9.2 billion in 2050. The additional 2.7 billion expected—equivalent to the size of the world population in 1950—will be absorbed mostly by the less developed regions, whose population is projected to rise from 5.3 billion in 2005 to 7.9 billion in 2050. The population of the 50 least developed countries will likely more than double, passing from 0.8 billion in 2005 to 1.7 billion in 2050. In contrast, the population of the more developed regions is expected to remain nearly unchanged at 1.2 billion.

Cropland. Rapid population growth during the twentieth century resulted in large-scale conversion of wild land to agriculture, the largest single use of land. Currently, 12 per cent of the global land area is occupied by cropland and an additional 26 per cent by permanent pastures. On average, the share of cropland differs only slightly between the more and the less developed regions, while in the least developed countries the average share (8 per cent) is lower. Although farmers have traditionally satisfied increasing demand by ploughing new land, in many countries opportunities for expanding cropland are limited because most of the land remaining is unsuitable for agriculture or is reserved for other uses. Boosting productivity is therefore crucial to

ensure increasing food production. However, agricultural intensification needs to be sustainable. Unsustainable agricultural practices can disrupt local ecosystems and eventually destroy the land's productive potential.

Forest area. Forests provide vital resources and services, including wood products, habitat for wildlife, water and soil conservation, and a filter for pollutants. Today, forests cover nearly one third of the Earth's land surface. During 2000-2005, deforestation, caused mainly by the conversion of forests into agricultural land, has continued at a rapid pace, with some 130 km² of forested land cleared every year—an area about the size of Bangladesh. However, as a result of replanting and natural forest growth in some areas, the net loss has been less: about 73 km² annually. The pace of net forest loss is estimated to have decreased slightly since the 1990s and in some regions it has stabilized (Asia) or there has been a net gain in forested land (Europe and Northern America). The regions experiencing the greatest recent losses of forest area are Africa and Latin America and the Caribbean.

Irrigated area. Irrigated agricultural land comprises less than one fifth of the total cropped area of the world but produces about two fifths of the world's

food. Irrigation also accounts for about 70 per cent of global water withdrawals. The proportion of cropland equipped for irrigation is particularly high in Asia, especially Eastern Asia, where almost half of cropland is irrigated. Excessive and poorly managed irrigation can degrade soils through erosion and salinization. According to the United Nations Environment Programme, over 10 per cent of the world's irrigated lands are severely degraded.

Rural population. The world's rural population stood at about 3.4 billion persons in 2005, slightly over half of the global population. Over 90 per cent of the world's rural residents (3.0 billion) live in the less developed regions. Between 2000 and 2005, the average annual growth rate of the world's rural population was 0.5 per cent, compared to 2.1 per cent for urban areas. Most of the future growth in the world's rural population will occur in Africa, where the rural population is still increasing. During 2000-2005 it grew at 1.7 per cent per year. Globally, the growth rate of the rural population has been declining since 1970 and, in the more developed regions, the number of rural-dwellers has been decreasing slowly for many years. The rural population of the less developed regions is projected to reach a maximum of 3.2 billion by 2020 and then start a slow and prolonged decline.

Access to improved water source and sanitation in rural areas. Access to safe drinking water and adequate sanitation improves health, well-being and economic and social productivity. Access to safe water and access to sanitation are also among the

indicators that the international community uses to monitor progress towards environmental sustainability, since surface and groundwater sources are increasingly at risk of pollution by pesticides, industry effluents and untreated household wastewater. The overextraction of water for agriculture and manufacturing has threatened the sustainability of water resources in many parts of the world. About 85 per cent of persons who lack access to improved water sources live in rural areas, as do approximately 75 per cent of those without access to adequate sanitation. Globally, about 900 million rural-dwellers (28 per cent) lack access to an improved water supply and 2 billion (62 per cent) lack adequate sanitation services. In the least developed countries, half of the rural population lack access to an improved water supply and more than two thirds lack adequate sanitation.

Agricultural labour intensity. The number of agricultural workers per unit of cultivated land is markedly higher in the less developed regions than in the more developed regions. Agricultural labour intensity responds to changes in the structure of national economies and in agricultural technology. In recent decades, agricultural labour intensity has been declining in most middle-income and high-income countries but has risen substantially in many low-income countries.

Gross domestic product (GDP) per capita. Between 1995 and 2005, per capita GDP growth accelerated in low-income and middle-income countries. Growth in GDP per capita was more rapid in devel-

oping countries than in high-income countries during 2000-2005. However, these favourable recent trends have produced only a small narrowing of the wide income gap that still exists between the developed and the developing economies. Average GDP per capita in the developing regions, expressed in purchasing power parity terms, stands at \$5,181 and is equivalent to 18 per cent of that in the more developed regions. In the least developed countries, the average GDP per capita is equivalent to 5 per cent of that in the more developed regions.

Value added by agriculture. A fundamental aspect of economic development is the increasing concentration of activity in high value added sectors, including industry and services. In most countries, the economic share of agriculture has been declining in recent periods, while that of services has increased. The share of industry has changed less. Currently, agriculture contributes only 3 per cent of the GDP in the more developed regions and 12 per cent of the GDP in the less developed regions. In the least developed countries, the share of agriculture in GDP is higher, at 26 per cent. In some countries in Africa, agriculture accounts for over half of GDP.

Energy use. Although access to energy is essential for development, its production and use as well as its by-products have heavy impacts on the environment. Energy generated by the combustion of fossil fuels and biomass often results in air pollution, with negative impacts on the health of both people and ecosystems. Aside from being major users of energy,

agriculture and forestry are also major suppliers of energy. The increasing demand for biofuels derived from agricultural biomass is contributing to changes in land-use patterns. On average, per capita energy use in the more developed regions is five times greater than in the less developed regions and more than 15 times greater than in the least developed countries. Whereas energy consumption in developed countries has continued to increase and currently accounts for about 70 per cent of the world's energy demand, much of the future growth in energy demand is expected to occur in developing countries where a large proportion of the population still lacks access to modern, high-quality energy sources.

Fertilizer use. Although fertilizer is an essential input for increasing agricultural production, heavy applications of fertilizer also put pressure on the environment. Fertilizer use contributes to soil acidification, contamination of water supplies with nitrates, emission of nitrous oxide into the air and severe disruption of natural aquatic life, especially in lakes and coastal estuaries. The environmental effects of fertilizer use vary, depending on pollution abatement practices, soil and plant types, and meteorological conditions, among other factors. Better timing of fertilizer application, more accurate delivery and more precise calculation of doses can substantially reduce its damaging effects. Currently, the amount of fertilizer applied per unit of cropland differs little between the more developed regions and the less developed regions, but is considerably lower in the least developed countries.

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 Action,³ the Programme for the Further Implementation of Agenda 21⁴ and the Plan of Implementation of the World Summit on Sustainable Development,⁵ 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.95.XIII.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.93.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 191 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 (1997), ratified by 191 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 procedures 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 192 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 176 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 the Bali Road Map, 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 115 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 190 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.

Source: United Nations Treaty Collection. Status as of 1 January 2008. 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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