

Energy and the environment

HDI rank	Electricity consumption per capita		Electrification rate (%)	Population without electricity (millions)	GDP per unit of energy use		Forest area			Average annual change (%)	
	(kilowatt-hours)	(% change)			(2000 PPP US\$ per kg of oil equivalent)	(% change)	% of total land area	Total (thousand sq km)	Total change (thousand sq km)		
	2004	1990–2004	2000–05 ^a	2005	2004	1990–2004	2005	2005	1990–2005	1990–2005	
HIGH HUMAN DEVELOPMENT											
1	Iceland	29,430	66.4	100	..	2.5	-12.1	0.5	0.5	0.2	5.6
2	Norway	26,657	6.5	100	..	5.9	15.9	30.7	93.9	2.6	0.2
3	Australia	11,849	30.4	100	..	4.8	21.3	21.3	1,636.8	-42.3	-0.2
4	Canada	18,408	5.9	100	..	3.4	12.5	33.6	3,101.3	..	..
5	Ireland	6,751	62.7	100	..	9.5	81.9	9.7	6.7	2.3	3.4
6	Sweden	16,670	-1.9	100	..	4.5	13.0	66.9	275.3	1.6	(.)
7	Switzerland	8,669 ^b	10.3 ^b	100	..	8.3	0.9	30.9	12.2	0.7	0.4
8	Japan	8,459	21.8	100	..	6.4	-1.4	68.2	248.7	-0.8	(.)
9	Netherlands	7,196	32.7	100	..	5.8	11.7	10.8	3.7	0.2	0.4
10	France	8,231 ^c	24.6 ^c	100	..	5.9	8.0	28.3	155.5	10.2	0.5
11	Finland	17,374	33.2	100	..	3.8	-1.1	73.9	225.0	3.1	0.1
12	United States	14,240	11.9	100	..	4.6	25.3	33.1	3,030.9	44.4	0.1
13	Spain	6,412	63.3	100	..	6.9	-4.9	35.9	179.2	44.4	2.2
14	Denmark	6,967	7.4	100	..	7.9	14.7	11.8	5.0	0.6	0.8
15	Austria	8,256	27.7	100	..	7.3	2.9	46.7	38.6	0.9	0.2
16	United Kingdom	6,756	15.9	100	..	7.3	22.2	11.8	28.5	2.3	0.6
17	Belgium	8,986	33.4	100	..	5.2	10.3	22.0	6.7	-0.1	-0.1
18	Luxembourg	16,630	21.1	100	..	6.1	77.5	33.5	0.9	(.)	0.1
19	New Zealand	10,238	6.7	100	..	5.1	25.0	31.0	83.1	5.9	0.5
20	Italy	6,029 ^d	36.1 ^d	100	..	8.2	-2.5	33.9	99.8	16.0	1.3
21	Hong Kong, China (SAR)	6,401	34.4	..	..	11.5	6.4	..	..	..	..
22	Germany	7,442	10.4	100	..	6.2	31.6	31.7	110.8	3.4	0.2
23	Israel	6,924	62.8	97	0.2	7.3	4.7	8.3	1.7	0.2	0.7
24	Greece	5,630	60.1	100	..	7.4	11.1	29.1	37.5	4.5	0.9
25	Singapore	8,685	67.7	100	0.0	4.4	30.6	3.4	(.)	0.0	0.0
26	Korea (Republic of)	7,710	178.3	100	..	4.2	-6.3	63.5	62.7	-1.1	-0.1
27	Slovenia	7,262	..	..	..	5.4	10.6	62.8	12.6	0.8	0.4
28	Cyprus	5,718	97.2	..	..	5.9	8.5	18.9	1.7	0.1	0.5
29	Portugal	4,925	69.9	100	..	7.1	-9.8	41.3	37.8	6.8	1.5
30	Brunei Darussalam	8,842	80.9	99	0.0	..	..	52.8	2.8	-0.4	-0.7
31	Barbados	3,304	85.0	..	..	..	..	4.0	(.)	..	..
32	Czech Republic	6,720	..	..	..	4.0	30.8	34.3	26.5	0.2	(.)
33	Kuwait	15,423	75.0	100	0.0	1.9	63.1	0.3	0.1	(.)	6.7
34	Malta	5,542	53.4	..	..	7.5	47.9	1.1	..	..	..
35	Qatar	19,840	101.8	71	0.2	..	..	(.)	..	..	..
36	Hungary	4,070	6.7	..	..	5.9	40.6	21.5	19.8	1.8	0.6
37	Poland	3,793	6.9	..	..	5.1	74.8	30.0	91.9	3.1	0.2
38	Argentina	2,714	70.6	95	1.8	7.4	15.8	12.1	330.2	-22.4	-0.4
39	United Arab Emirates	12,000	41.5	92	0.4	2.2	15.7	3.7	3.1	0.7	1.8
40	Chile	3,347	138.7	99	0.2	6.1	11.9	21.5	161.2	8.6	0.4
41	Bahrain	11,932	52.3	99	0.0	1.8	21.5	0.6	..	..	..
42	Slovakia	5,335	..	..	..	3.9	45.3	40.1	19.3	0.1	(.)
43	Lithuania	3,505	..	..	..	4.5	60.5	33.5	21.0	1.5	0.5
44	Estonia	6,168	..	..	..	3.5	113.2	53.9	22.8	1.2	0.4
45	Latvia	2,923	..	..	..	5.6	122.6	47.4	29.4	1.7	0.4
46	Uruguay	2,408	52.4	95	0.2	10.4	5.3	8.6	15.1	6.0	4.4
47	Croatia	3,818	..	..	..	5.6	12.0	38.2	21.4	0.2	0.1
48	Costa Rica	1,876	54.4	99	0.1	10.0	2.9	46.8	23.9	-1.7	-0.4
49	Bahamas	6,964 ^e	87.0	..	..	..	..	51.5	5.2	..	..
50	Seychelles	2,716 ^e	88.2	..	..	..	..	88.9	0.4	0.0	0.0
51	Cuba	1,380	0.6	96	0.5	..	..	24.7	27.1	6.6	2.1
52	Mexico	2,130	46.5	5.5	8.5	33.7	642.4	-47.8	-0.5
53	Bulgaria	4,582	-10.3	3.0	44.7	32.8	36.3	3.0	0.6

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	2004	1990–2004	2000–05 ^a	2005	2004	1990–2004	2005	2005	1990–2005	1990–2005	
54	Saint Kitts and Nevis	3,333 ^e	115.3	14.7	0.1	0.0	0.0
55	Tonga	327 ^e	30.8	..	..	..	..	5.0	(.)	0.0	0.0
56	Libyan Arab Jamahiriya	3,147	-22.2	97	0.2	..	..	0.1	2.2	0.0	0.0
57	Antigua and Barbuda	1,346 ^e	-10.7	..	..	..	..	21.4	0.1	..	..
58	Oman	5,079	83.2	96	0.1	3.0	-29.9	(.)	(.)	0.0	0.0
59	Trinidad and Tobago	4,921	67.1	99	0.0	1.3	-5.3	44.1	2.3	-0.1	-0.3
60	Romania	2,548	-19.9	..	..	4.5	80.9	27.7	63.7	(.)	0.0
61	Saudi Arabia	6,902	57.9	97	0.8	2.0	-28.2	1.3	27.3	0.0	0.0
62	Panama	1,807	51.0	85	0.5	8.4	13.5	57.7	42.9	-0.8	-0.1
63	Malaysia	3,196	129.6	98	0.6	4.1	-5.1	63.6	208.9	-14.9	-0.4
64	Belarus	3,508	..	..	..	2.4	89.6	38.0	78.9	5.2	0.5
65	Mauritius	1,775	147.2	94	0.1	..	..	18.2	0.4	(.)	-0.3
66	Bosnia and Herzegovina	2,690	..	..	..	5.3	..	43.1	21.9	-0.3	-0.1
67	Russian Federation	6,425	..	..	..	2.0	28.3	47.9	8,087.9	-1.6	0.0
68	Albania	1,847	82.3	..	..	5.9	55.2	29.0	7.9	0.1	(.)
69	Macedonia (TFYR)	3,863	..	..	..	4.6	13.7	35.8	9.1	0.0	0.0
70	Brazil	2,340	39.5	97	6.5	6.8	-6.7	57.2	4,777.0	-423.3	-0.5
MEDIUM HUMAN DEVELOPMENT											
71	Dominica	1,129	170.7	..	..	..	..	61.3	0.5	(.)	-0.5
72	Saint Lucia	1,879	136.6	..	..	..	..	27.9	0.2	0.0	0.0
73	Kazakhstan	4,320	..	..	..	1.9	86.7	1.2	33.4	-0.9	-0.2
74	Venezuela (Bolivarian Republic of)	3,770	23.6	99	0.4	2.6	0.5	54.1	477.1	-43.1	-0.6
75	Colombia	1,074 ^e	3.1	86	6.3	10.9	29.6	58.5	607.3	-7.1	-0.1
76	Ukraine	3,727	..	..	..	2.0	11.7	16.5	95.8	3.0	0.2
77	Samoa	619 ^e	103.0	..	..	..	..	60.4	1.7	0.4	2.1
78	Thailand	2,020 ^e	141.1	99	0.6	4.9	-14.0	28.4	145.2	-14.5	-0.6
79	Dominican Republic	1,536	197.7	93	0.7	7.6	7.0	28.4	13.8	..	..
80	Belize	686 ^e	13.8	..	..	..	..	72.5	16.5	..	..
81	China	1,684	212.4	99	8.5	4.4	108.6	21.2	1,972.9	401.5	1.7
82	Grenada	1,963	225.0	..	..	..	..	12.2	(.)	..	..
83	Armenia	1,744	..	..	..	5.6	122.8	10.0	2.8	-0.6	-1.2
84	Turkey	2,122	109.5	..	..	6.2	6.4	13.2	101.8	5.0	0.3
85	Suriname	3,437	-9.9	..	..	..	..	94.7	147.8	0.0	0.0
86	Jordan	1,738	53.4	100	0.0	3.6	4.3	0.9	0.8	0.0	0.0
87	Peru	927	44.6	72	7.7	10.9	30.0	53.7	687.4	-14.1	-0.1
88	Lebanon	2,691	374.6	100	0.0	3.5	29.9	13.3	1.4 ^f	0.2	0.8
89	Ecuador	1,092	77.3	90	1.3	4.8	-17.7	39.2	108.5	-29.6	-1.4
90	Philippines	677	68.8	81	16.2	7.9	-12.7	24.0	71.6	-34.1	-2.2
91	Tunisia	1,313	93.7	99	0.1	8.2	22.2	6.8	10.6	4.1	4.3
92	Fiji	926 ^e	44.9	..	..	..	..	54.7	10.0	0.2	0.1
93	Saint Vincent and the Grenadines	1,030	114.1	..	..	..	..	27.4	0.1	(.)	1.5
94	Iran (Islamic Republic of)	2,460	126.7	97	1.8	3.1	-13.6	6.8	110.8	0.0	0.0
95	Paraguay	1,146	99.3	86	0.9	6.4	-2.0	46.5	184.8	-26.8	-0.8
96	Georgia	1,577	..	..	..	4.1	236.3	39.7	27.6	..	..
97	Guyana	1,090	155.3	..	..	..	..	76.7	151.0 ^f	..	..
98	Azerbaijan	2,796	..	..	..	2.5	..	11.3	9.4	..	..
99	Sri Lanka	420	127.0	66	6.7	8.3	13.8	29.9	19.3	-4.2	-1.2
100	Maldives	539	385.6	..	..	..	..	3.0	(.)	0.0	0.0
101	Jamaica	2,697	160.8	87	0.3	2.5	-18.2	31.3	3.4	-0.1	-0.1
102	Cape Verde	529	330.1	..	..	..	..	20.7	0.8	0.3	3.0
103	El Salvador	732	62.7	80	1.4	7.0	-3.1	14.4	3.0	-0.8	-1.4
104	Algeria	889	40.7	98	0.6	6.0	4.5	1.0	22.8	4.9	1.8
105	Viet Nam	560	324.2	84	13.2	4.2	26.5	39.7	129.3	35.7	2.5
106	Occupied Palestinian Territories	513	1.5	0.1 ^f	0.0	0.0

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	2004	1990–2004	2000–05 ^a	2005	2004	1990–2004	2005	2005	1990–2005	1990–2005	
107	Indonesia	476 ^e	75.0	54	101.2	4.1	-0.1	48.8	885.0	-280.7	-1.6
108	Syrian Arab Republic	1,784	88.4	90	1.9	3.4	19.9	2.5	4.6	0.9	1.6
109	Turkmenistan	2,060	..	..	..	1.3 ^d	-21.3	8.8	41.3	0.0	0.0
110	Nicaragua	525	37.1	69	1.7	5.2	-2.3	42.7	51.9	-13.5	-1.4
111	Moldova	1,554	..	..	..	2.0	40.8	10.0	3.3	0.1	0.2
112	Egypt	1,465 ^e	93.0	98	1.5	4.9	-2.2	0.1	0.7	0.2	3.5
113	Uzbekistan	1,944	..	..	..	0.8	11.1	8.0	33.0	2.5	0.5
114	Mongolia	1,260	-25.2	65	1.0	..	..	6.5	102.5	-12.4	-0.7
115	Honduras	730	79.4	62	2.7	4.8	-3.9	41.5	46.5	-27.4	-2.5
116	Kyrgyzstan	2,320	..	..	..	3.3	92.3	4.5	8.7	0.3	0.3
117	Bolivia	493	42.1	64	3.3	4.5	-10.6	54.2	587.4	-40.6	-0.4
118	Guatemala	532	100.0	79	2.7	6.4	-3.6	36.3	39.4	-8.1	-1.1
119	Gabon	1,128	5.4	48	0.7	4.9	3.1	84.5	217.8	-1.5	(.)
120	Vanuatu	206 ^e	18.4	..	..	..	..	36.1	4.4	0.0	0.0
121	South Africa	4,818 ^h	20.8 ^h	70	14.0	3.7	-4.5	7.6	92.0	0.0	0.0
122	Tajikistan	2,638	..	..	..	2.1	139.6	2.9	4.1	(.)	(.)
123	Sao Tome and Principe	99 ^e	-23.8	..	..	..	..	28.4	0.3	0.0	0.0
124	Botswana	.. ⁱ	.. ⁱ	39	1.1	8.6	40.0	21.1	119.4	-17.8	-0.9
125	Namibia	.. ⁱ	.. ⁱ	34	1.4	10.2	-16.5	9.3	76.6	-11.0	-0.8
126	Morocco	652	84.7	85	4.5	10.3	-13.9	9.8	43.6	0.8	0.1
127	Equatorial Guinea	52 ^e	0	..	..	..	..	58.2	16.3	-2.3	-0.8
128	India	618	77.6	56	487.2	5.5	37.1	22.8	677.0	37.6	0.4
129	Solomon Islands	107 ^e	13.8	..	..	..	..	77.6	21.7	-6.0	-1.4
130	Lao People's Democratic Republic	126 ^e	80.0	..	..	..	..	69.9	161.4	-11.7	-0.5
131	Cambodia	10 ^e	-44.4	20	10.9	..	..	59.2	104.5	-25.0	-1.3
132	Myanmar	129	111.5	11	45.1	..	..	49.0	322.2	-70.0	-1.2
133	Bhutan	229 ^e	126.7	..	..	..	..	68.0	32.0	1.6	0.4
134	Comoros	31 ^e	3.3	..	..	..	..	2.9	0.1	-0.1	-3.9
135	Ghana	289	-22.3	49	11.3	5.4	18.3	24.2	55.2	-19.3	-1.7
136	Pakistan	564	61.6	54	71.1	4.2	7.7	2.5	19.0	-6.3	-1.6
137	Mauritania	112 ^e	60.0	..	..	..	..	0.3	2.7	-1.5	-2.4
138	Lesotho	.. ⁱ	.. ⁱ	11	1.9	..	..	0.3	0.1	(.)	4.0
139	Congo	229	-2.1	20	3.2	3.3	45.4	65.8	224.7	-2.6	-0.1
140	Bangladesh	154	111.0	32	96.2	10.5	7.2	6.7	8.7	-0.1	-0.1
141	Swaziland	.. ⁱ	.. ⁱ	..	..	..	..	31.5	5.4	0.7	1.0
142	Nepal	86	104.8	33	18.1	4.0	18.4	25.4	36.4	-11.8	-1.6
143	Madagascar	56	5.7	15	15.2	..	..	22.1	128.4	-8.5	-0.4
144	Cameroon	256	8.9	47	8.7	4.5	-4.4	45.6	212.5	-33.0	-0.9
145	Papua New Guinea	620 ^e	28.1	..	..	..	..	65.0	294.4	-20.9	-0.4
146	Haiti	61	-17.6	36	5.5	6.2	-39.9	3.8	1.1	-0.1	-0.6
147	Sudan	116	123.1	30	25.4	3.7	33.2	28.4	675.5	-88.4	-0.8
148	Kenya	169	26.1	14	29.4	2.1	-3.8	6.2	35.2	-1.9	-0.3
149	Djibouti	260 ^e	-46.8	..	..	..	..	0.2	0.1	..	..
150	Timor-Leste	294 ^e	..	..	..	..	..	53.7	8.0	-1.7	-1.2
151	Zimbabwe	924	-10.1	34	8.7	2.6	-13.4	45.3	175.4	-46.9	-1.4
152	Togo	102	1.0	17	5.1	3.1	-26.9	7.1	3.9	-3.0	-2.9
153	Yemen	208	34.2	36	13.2	2.8	-6.0	1.0	5.5	0.0	0.0
154	Uganda	63 ^e	61.5	9	24.6	..	..	18.4	36.3	-13.0	-1.8
155	Gambia	98 ^e	30.7	..	..	..	..	41.7	4.7	0.3	0.4
LOW HUMAN DEVELOPMENT											
156	Senegal	206	70.2	33	7.8	6.5	28.2	45.0	86.7	-6.8	-0.5
157	Eritrea	67	..	20	3.5	..	..	15.4	15.5	-0.7	-0.3
158	Nigeria	157	-1.9	46	71.1	1.4	22.7	12.2	110.9	-61.5	-2.4
159	Tanzania (United Republic of)	69	4.5	11	34.2	1.3	-12.5	39.9	352.6	-61.8	-1.0

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160 Guinea	87 ^e	3.6	27.4	67.2	-6.8	-0.6
161 Rwanda	31 ^e	24.0	19.5	4.8	1.6	3.4
162 Angola	220	161.9	15	13.5	3.3	-12.4	47.4	591.0	-18.7	-0.2
163 Benin	81	72.3	22	6.5	3.3	25.8	21.3	23.5	-9.7	-1.9
164 Malawi	100 ^e	14.9	7	11.8	..	..	36.2	34.0	-4.9	-0.8
165 Zambia	721	-7.8	19	9.5	1.5	0.4	57.1	424.5	-66.7	-0.9
166 Côte d'Ivoire	224	7.7	50	9.1	3.7	-29.1	32.7	104.1	1.8	0.1
167 Burundi	22 ^e	-4.3	..	..	..	..	5.9	1.5	-1.4	-3.2
168 Congo (Democratic Republic of the)	92	-42.1	6	53.8	2.2	-55.8	58.9	1,336.1	-69.2	-0.3
169 Ethiopia	36	..	15	60.8	2.8	5.8	11.9	130.0	-21.1	-0.9
170 Chad	11 ^e	-31.3	..	..	..	..	9.5	119.2	-11.9	-0.6
171 Central African Republic	28 ^e	-12.5	..	..	..	..	36.5	227.6	-4.5	-0.1
172 Mozambique	545	856.1	6	18.6	2.6	105.8	24.6	192.6	-7.5	-0.2
173 Mali	41 ^e	36.7	..	..	..	..	10.3	125.7	-15.0	-0.7
174 Niger	40 ^e	-13.0	..	..	..	..	1.0	12.7	-6.8	-2.3
175 Guinea-Bissau	44 ^e	4.8	..	..	..	..	73.7	20.7	-1.4	-0.4
176 Burkina Faso	31 ^e	55.0	7	12.4	..	..	29.0	67.9	-3.6	-0.3
177 Sierra Leone	24	-54.7	..	..	..	..	38.5	27.5	-2.9	-0.6
Developing countries	1,221	..	68 ^j	1,569.0 ^j	4.6	..	27.9	21,147.8	-1,381.7	-0.4
Least developed countries	119	..	..	..	..	..	27.5	5,541.6	-583.6	-0.6
Arab States	1,841	..	..	..	3.4	..	7.2	877.7	-88.0	-0.6
East Asia and the Pacific	1,599	..	..	..	..	..	28.6	4,579.3	-75.5	0.1
Latin America and the Caribbean	2,043	..	90 ^j	45.0 ^j	6.2	..	45.9	9,159.0	-686.3	-0.5
South Asia	628	..	..	..	5.1	..	14.2	911.8	12.5	0.1
Sub-Saharan Africa	478	..	26 ^j	547.0 ^j	..	..	26.8	5,516.4	-549.6	-0.6
Central and Eastern Europe and the CIS	4,539	..	..	..	2.6	..	38.3	8,856.5	22.7	(.)
OECD	8,795	..	100	..	5.3	..	30.9	10,382.4	67.9	0.1
High-income OECD	10,360	..	100	..	5.3	..	31.2	9,480.8	105.6	0.1
High human development	7,518	..	99	..	5.0	..	36.2	24,327.1	-366.8	-0.1
Medium human development	1,146	..	72	..	4.5	..	23.3	10,799.6	-462.4	-0.2
Low human development	134	..	25	..	..	..	29.8	4,076.5	-379.5	-0.5
High income	10,210	..	100	..	5.2	..	29.2	9,548.4	107.1	0.1
Middle income	2,039	..	90	..	4.2	..	33.8	23,132.3	-683.1	-0.2
Low income	449	..	45	..	..	..	23.9	6,745.6	-676.2	-0.6
World	2,701 ^j	..	76 ^j	1,577.0 ^j	4.8 ^j	..	30.3 ^j	39,520.3 ^j	-1,252.7 ^j	-0.2

NOTES

- a. Data refer to the most recent year available during the period specified.
- b. Includes Liechtenstein.
- c. Includes Monaco.
- d. Includes San Marino.
- e. Data are estimates produced by the UN Statistics Division.
- f. Estimate produced by the Food and Agriculture Organization based on information provided by the country.
- g. Data refer to a year or period other than that specified.

- h. Data refer to the South African Customs Union, which includes Botswana, Lesotho, Namibia and Swaziland.
- i. Included in data for South Africa.
- j. Data are aggregates provided by original data source.

SOURCES

- Column 1: UN2007d.
- Column 2: calculated based on data from UN 2007b.
- Column 3-4: IEA 2002 and IEA 2006.
- Column 5: World Bank 2007b, based on data from IEA.
- Column 6: calculated based on data from World Bank 2007b.
- Column 7-8: FAO 2006.
- Column 9-10: calculated based on data from FAO 2006.