

Table 10. Energy use and emissions

Economy	Commercial energy use												
	Thousand metric tons of oil equivalent		Per capita			GDP per unit of energy use 1995 \$ per kg		Net energy imports % of commercial energy use		Carbon dioxide emissions			
	1980	1996	1980	1996	1980-96	1980	1996	1980	1996	Total Million metric tons		Per capita Metric tons	
Albania	3,049	1,188	1,142	362	-7.8	0.8	2.2	-12	9	4.8	1.9	1.8	0.6
Algeria	12,410	24,150	665	842	1.0	2.5	1.8	-440	-381	66.2	94.3	3.5	3.3
Angola	4,538	6,017	647	532	-1.2	..	0.9	-149	-573	5.3	5.1	0.8	0.5
Argentina	41,868	58,921	1,490	1,673	0.7	5.7	5.0	7	-27	107.5	129.9	3.8	3.7
Armenia	1,070	1,790	346	474	-4.9	5.2	1.7	-18	59	..	3.7	..	1.0
Australia	70,372	100,612	4,790	5,494	0.9	3.3	3.7	-22	-88	202.8	306.6	13.8	16.7
Austria	23,450	27,187	3,105	3,373	0.9	7.1	8.7	67	71	52.2	59.3	6.9	7.4
Azerbaijan	15,002	11,862	2,433	1,570	-5.6	..	0.3	1	-21	..	30.0	..	4.0
Bangladesh	14,920	23,928	172	197	0.9	1.3	1.7	11	10	7.6	23.0	0.1	0.2
Belarus	2,385	24,566	247	2,386	7.5	..	0.8	-8	87	..	61.7	..	6.0
Belgium	46,100	56,399	4,682	5,552	1.4	4.6	4.9	84	79	127.2	106.0	12.9	10.4
Benin	1,363	1,920	394	341	-1.0	0.9	1.1	11	-2	0.5	0.7	0.1	0.1
Bolivia	2,335	3,633	436	479	0.0	2.3	1.9	-84	-44	4.5	10.1	0.8	1.3
Botswana	..	..	..	..	..	..	..	..	..	1.0	2.1	1.1	1.4
Brazil	108,997	163,374	896	1,012	1.0	4.7	4.4	43	31	183.4	273.4	1.5	1.7
Bulgaria	28,673	22,605	3,235	2,705	-2.0	0.4	0.5	73	54	75.3	55.3	8.5	6.6
Burkina Faso	..	..	..	..	..	..	..	..	..	0.4	1.0	0.1	0.1
Burundi	..	..	..	..	..	..	..	..	..	0.1	0.2	0.0	0.0
Cambodia	..	..	..	..	..	..	..	..	..	0.3	0.5	0.0	0.0
Cameroon	3,687	5,000	426	369	-1.1	1.7	1.7	-58	-100	3.9	3.5	0.4	0.3
Canada	193,000	236,170	7,848	7,880	0.3	2.1	2.5	-7	-51	420.9	409.4	17.1	13.7
Central African Republic	..	..	..	..	..	..	..	..	..	0.1	0.2	0.0	0.1
Chad	..	..	..	..	..	..	..	..	..	0.2	0.1	0.0	0.0
Chile	9,525	20,456	855	1,419	3.7	2.8	3.1	41	62	27.9	48.8	2.5	3.4
China	593,109	1,096,800	604	902	2.6	0.3	0.7	-3	0	1,476.8	3,363.5	1.5	2.8
Hong Kong, China	5,681	12,190	1,127	1,931	4.4	10.0	12.0	99	100	16.3	23.1	3.2	3.7
Colombia	19,127	31,393	672	799	1.0	2.4	2.6	5	-113	39.8	65.3	1.4	1.7
Congo, Dem. Rep.	8,706	13,799	322	305	-0.2	1.0	0.5	0	1	3.5	2.3	0.1	0.1
Congo, Rep.	845	1,205	506	457	-0.6	1.5	1.9	-370	-854	0.4	5.0	0.2	1.9
Costa Rica	1,527	2,248	669	657	0.7	3.7	4.0	50	67	2.5	4.7	1.1	1.4
Côte d'Ivoire	3,662	5,301	447	382	-0.6	2.3	2.0	34	10	4.6	13.1	0.6	0.9
Croatia	..	6,765	..	1,418	..	..	2.8	..	42	..	17.5	..	3.7
Czech Republic	46,910	40,404	4,585	3,917	-1.7	..	1.3	9	22	..	126.7	..	12.3
Denmark	19,734	22,870	3,852	4,346	0.8	6.8	8.2	95	23	62.9	56.6	12.3	10.7
Dominican Republic	3,464	5,191	608	652	0.1	2.2	2.5	62	72	6.4	12.9	1.1	1.6
Ecuador	5,191	8,548	652	731	0.2	2.4	2.1	-126	-156	13.4	24.5	1.7	2.1
Egypt, Arab Rep.	15,970	37,790	391	638	2.6	1.8	1.6	-114	-58	45.2	97.9	1.1	1.7
El Salvador	2,540	4,058	554	700	1.0	2.9	2.4	25	36	2.1	4.0	0.5	0.7
Eritrea	..	..	..	..	..	..	..	..	..	..	..	..	..
Estonia	..	5,621	..	3,834	..	..	0.9	..	31	..	16.4	..	11.2
Ethiopia	11,157	16,566	296	284	-0.1	0.4	0.4	5	6	1.8	3.4	0.0	0.1
Finland	25,413	31,482	5,316	6,143	1.1	3.7	4.1	73	57	54.9	59.2	11.5	11.5
France	190,111	254,196	3,528	4,355	1.6	6.1	6.1	76	49	482.7	361.8	9.0	6.2
Georgia	4,474	1,576	882	291	-5.8	2.7	2.1	-5	55	..	3.0	..	0.5
Germany	360,441	349,552	4,603	4,267	-0.5	..	7.0	48	60	..	861.2	..	10.5
Ghana	4,071	6,657	379	380	0.4	1.0	1.0	19	16	2.4	4.0	0.2	0.2
Greece	15,960	24,389	1,655	2,328	2.5	5.7	4.8	77	64	51.7	80.6	5.4	7.7
Guatemala	3,754	5,224	550	510	0.0	2.9	2.9	33	23	4.5	6.8	0.7	0.7
Guinea	..	..	..	..	..	..	..	..	..	0.9	1.1	0.2	0.2
Haiti	2,099	1,968	392	268	-2.8	1.5	1.4	11	19	0.8	1.1	0.1	0.1
Honduras	1,877	2,925	526	503	-0.2	1.4	1.4	30	40	2.1	4.0	0.6	0.7
Hungary	28,895	25,470	2,699	2,499	-0.8	1.6	1.8	48	50	82.5	59.5	7.7	5.8
India	242,024	450,287	352	476	1.9	0.6	0.8	8	13	347.3	997.4	0.5	1.1
Indonesia	59,561	132,419	402	672	3.5	1.3	1.6	-116	-66	94.6	245.1	0.6	1.2
Iran, Islamic Rep.	38,918	89,340	995	1,491	3.2	1.4	1.1	-116	-147	116.1	266.7	3.0	4.4
Ireland	8,484	11,961	2,495	3,293	2.0	4.0	5.9	78	71	25.2	34.9	7.4	9.6
Israel	8,609	16,185	2,220	2,843	2.6	5.1	5.6	98	96	21.1	52.3	5.4	9.2
Italy	138,629	161,140	2,456	2,808	1.3	6.0	6.8	86	82	371.9	403.2	6.6	7.0
Jamaica	2,378	3,718	1,115	1,465	2.3	1.3	1.1	91	85	8.4	10.1	4.0	4.0
Japan	346,491	510,359	2,967	4,058	2.4	9.3	10.5	88	80	920.4	1,167.7	7.9	9.3
Jordan	1,714	4,487	786	1,040	0.6	2.2	1.5	100	96	..	..	..	..
Kazakhstan	76,799	43,376	5,163	2,724	-4.9	..	0.5	0	-44	..	173.8	..	10.9
Kenya	9,791	13,279	589	476	-1.1	0.6	0.7	19	15	6.2	6.8	0.4	0.2
Korea, Rep.	43,756	162,874	1,148	3,576	8.1	3.1	3.0	72	86	125.2	408.1	3.3	9.0
Kuwait	9,564	13,859	6,956	8,167	0.7	2.4	1.7	-884	-712	..	..	..	..
Kyrgyz Republic	1,717	2,952	473	645	4.1	..	1.2	-27	51	..	6.1	..	1.3
Lao PDR	..	..	..	..	..	..	..	..	..	0.2	0.3	0.1	0.1
Latvia	..	4,171	..	1,674	..	16.0	1.5	54	76	..	9.3	..	3.7
Lebanon	2,483	4,747	827	1,164	1.7	..	..	93	96	6.2	14.2	2.1	3.5
Lesotho	..	..	..	..	..	..	..	..	..	..	..	..	..
Lithuania	11,701	8,953	3,428	2,414	-4.0	..	0.8	95	53	..	13.8	..	3.7
Macedonia, FYR	..	..	..	..	..	..	..	..	..	..	12.7	..	6.4
Madagascar	..	..	..	..	..	..	..	..	..	1.6	1.2	0.2	0.1
Malawi	..	..	..	..	..	..	..	..	..	0.7	0.7	0.1	0.1
Malaysia	11,128	41,209	809	1,950	6.0	2.9	2.3	-50	-69	28.0	119.1	2.0	5.6

Note: For data comparability and coverage, see the Technical Notes. Figures in italics are for years other than those specified.

ENVIRONMENT

Economy	Commercial energy use					GDP per unit of energy use 1995 \$ per kg		Net energy imports % of commercial energy use		Carbon dioxide emissions			
	Thousand metric tons of oil equivalent		Per capita							Total Million metric tons		Per capita Metric tons	
	1980	1996	1980	1996	1980-96	1980	1996	1980	1996	1980	1996		
Mali	..	..	..	..	..	..	..	..	..	0.4	0.5	0.1	0.0
Mauritania	..	..	..	..	..	..	..	..	..	0.6	2.9	0.4	1.2
Mexico	98,904	141,384	1,464	1,525	0.2	2.3	2.1	-51	-51	251.6	348.1	3.7	3.8
Moldova	..	4,601	..	1,064	..	..	0.6	106	99	..	12.1	..	2.8
Mongolia	..	..	..	..	..	..	..	..	..	6.8	8.9	4.1	3.6
Morocco	4,778	8,822	247	329	2.1	4.5	4.2	82	90	15.9	27.9	0.8	1.0
Mozambique	8,386	7,813	693	481	-2.0	0.2	0.3	-2	7	3.2	1.0	0.3	0.1
Myanmar	9,430	12,767	279	294	0.3	..	..	-1	7	4.8	7.3	0.1	0.2
Namibia	..	..	..	..	..	..	..	..	..	..	..	..	..
Nepal	4,663	6,974	322	320	0.1	0.5	0.7	3	9	0.5	1.6	0.0	0.1
Netherlands	65,000	75,797	4,594	4,885	0.9	4.4	5.4	-11	3	152.6	155.2	10.8	10.0
New Zealand	9,251	16,295	2,972	4,388	2.9	4.7	3.8	41	17	17.6	29.8	5.6	8.0
Nicaragua	1,562	2,391	535	525	-0.1	1.3	1.0	42	37	2.0	2.9	0.7	0.6
Niger	..	..	..	..	..	..	..	..	..	0.6	1.1	0.1	0.1
Nigeria	52,846	82,669	743	722	-0.1	0.4	0.4	-181	-106	68.1	83.3	1.0	0.7
Norway	18,819	23,150	4,600	5,284	1.2	5.1	6.7	-196	-799	90.4	67.0	22.1	15.3
Pakistan	25,479	55,903	308	446	2.3	1.0	1.1	18	26	31.6	94.3	0.4	0.8
Panama	1,865	2,280	957	853	-0.3	2.8	3.6	72	67	3.5	6.7	1.8	2.5
Papua New Guinea	..	..	..	..	..	..	..	..	..	1.8	2.4	0.6	0.5
Paraguay	2,094	4,285	672	865	1.5	2.8	2.1	23	-56	1.5	3.7	0.5	0.7
Peru	11,700	13,933	675	582	-1.2	4.1	4.3	-25	11	23.6	26.2	1.4	1.1
Philippines	21,212	37,992	439	528	1.1	2.7	2.1	50	55	36.5	63.2	0.8	0.9
Poland	124,806	108,411	3,508	2,807	-2.0	0.9	1.2	2	6	456.2	356.8	12.8	9.2
Portugal	10,291	19,148	1,054	1,928	4.5	6.8	5.6	86	87	27.1	47.9	2.8	4.8
Romania	64,694	45,824	2,914	2,027	-2.9	0.6	0.7	19	32	191.8	119.3	8.6	5.3
Russian Federation	764,349	615,899	5,499	4,169	-3.6	0.5	0.5	2	-54	..	1,579.5	..	10.7
Rwanda	..	..	..	..	..	..	..	..	..	0.3	0.5	0.1	0.1
Saudi Arabia	35,357	92,243	3,773	4,753	0.4	3.0	1.4	-1,408	-415	130.7	267.8	14.0	13.8
Senegal	1,921	2,588	347	302	-0.7	1.6	1.8	46	39	2.8	3.1	0.5	0.4
Sierra Leone	..	..	..	..	..	..	..	..	..	0.6	0.4	0.2	0.1
Singapore	6,054	23,851	2,653	7,835	8.1	4.6	3.8	100	100	30.1	65.8	13.2	21.6
Slovak Republic	20,810	17,449	4,175	3,266	-1.8	..	1.1	84	72	..	39.6	..	7.4
Slovenia	4,313	6,167	2,269	3,098	1.0	..	3.1	62	55	..	13.0	..	6.5
South Africa	65,355	99,079	2,370	2,482	-0.4	1.7	1.4	-12	-29	211.3	292.7	7.7	7.3
Spain	68,583	101,411	1,834	2,583	2.8	5.7	5.6	77	68	200.0	232.5	5.3	5.9
Sri Lanka	4,493	6,792	305	371	0.7	1.5	2.0	29	38	3.4	7.1	0.2	0.4
Sweden	40,984	52,567	4,932	5,944	0.9	4.5	4.5	61	39	71.4	54.1	8.6	6.1
Switzerland	20,861	25,622	3,301	3,622	0.8	12.1	12.0	66	59	40.9	44.2	6.5	6.3
Syrian Arab Republic	5,348	14,541	614	1,002	2.4	1.7	1.2	-78	-132	19.3	44.3	2.2	3.1
Tajikistan	1,650	3,513	416	594	5.1	..	0.5	-20	62	..	5.8	..	1.0
Tanzania	10,280	13,798	553	453	-1.1	..	0.3	8	5	1.9	2.4	0.1	0.1
Thailand	22,740	79,987	487	1,333	7.3	2.3	2.2	51	45	40.0	205.4	0.9	3.4
Togo	..	..	..	..	..	..	..	..	..	0.6	0.8	0.2	0.2
Tunisia	3,900	6,676	611	735	1.4	2.7	2.9	-79	6	9.4	16.2	1.5	1.8
Turkey	31,314	65,520	704	1,045	2.6	2.8	2.8	45	59	76.3	178.3	1.7	2.8
Turkmenistan	7,948	12,164	2,778	2,646	-10.5	..	0.3	-1	-168	..	34.2	..	7.4
Uganda	..	..	..	..	..	..	..	..	..	0.6	1.0	0.1	0.1
Ukraine	97,893	153,937	1,956	3,012	1.0	..	0.5	-12	49	..	397.3	..	7.8
United Kingdom	201,299	234,719	3,574	3,992	0.8	4.0	4.8	2	-14	583.8	557.0	10.4	9.5
United States	1,811,650	2,134,960	7,973	8,051	0.4	2.7	3.4	14	21	4,575.4	5,301.0	20.1	20.0
Uruguay	2,637	2,955	905	912	0.2	5.8	6.4	75	65	5.8	5.6	2.0	1.7
Uzbekistan	4,821	42,406	302	1,826	7.0	..	0.5	4	-12	..	95.0	..	4.1
Venezuela	35,026	54,962	2,321	2,463	-0.4	1.7	1.4	-280	-253	89.6	144.5	5.9	6.5
Vietnam	19,348	33,750	360	448	0.7	..	0.7	7	-14	16.8	37.6	0.3	0.5
Yemen, Rep.	1,424	2,936	167	187	0.6	..	1.3	96	-519	..	..	..	..
Zambia	4,551	5,790	793	628	-1.7	0.7	0.6	8	7	3.5	2.4	0.6	0.3
Zimbabwe	6,511	10,442	929	929	0.4	0.7	0.7	13	16	9.6	18.4	1.4	1.6
World	6,954,847 t	9,317,404 t	1,622 w	1,684 w	2.9 w	3.1 w	3.2 w	.. w	.. w	13,640.7 t	22,653.9 t	3.4 w	4.0 w
Low income	1,153,366	2,063,558	480	640	3.9	..	..	-14	-9	2,126.1	5,051.8	0.9	1.5
Excl. China & India	318,233	516,471	433	486	3.7	..	0.8	..	..	302.0	690.9	0.4	0.6
Middle income	2,030,275	2,588,365	1,852	1,801	5.0	2.4	1.7	-35	-33	2,804.5	6,871.5	3.3	4.8
Lower middle income	1,368,743	1,537,541	2,040	1,763	7.4	1.7	1.0	-13	-20	1,150.1	4,194.9	2.6	4.8
Upper middle income	661,532	1,050,824	1,557	1,861	2.8	2.8	2.6	-98	-65	1,654.4	2,676.6	4.0	4.7
Low and middle income	3,183,641	4,651,923	910	998	4.5	1.4	1.3	-32	-28	4,930.6	11,923.3	1.5	2.5
East Asia & Pacific	812,075	1,621,801	588	925	4.6	..	..	..	..	1,958.5	4,717.5	1.4	2.7
Europe & Central Asia	1,339,527	1,287,193	3,349	2,739	7.6	..	0.8	7	-13	886.9	3,412.7	..	7.4
Latin America & Carib.	376,913	557,686	1,062	1,163	2.4	3.5	3.2	-24	-35	848.5	1,209.1	2.4	2.5
Middle East & N. Africa	146,215	337,073	842	1,244	5.1	2.2	1.6	-577	-225	493.6	986.9	3.0	3.9
South Asia	301,578	543,884	334	441	3.9	0.7	0.9	10	15	392.4	1,125.1	0.4	0.9
Sub-Saharan Africa	207,332	304,286	720	670	2.3	..	..	..	..	350.7	472.1	0.9	0.8
High income	3,771,206	4,665,482	4,792	5,346	1.6	4.1	5.0	27	24	8,710.2	10,730.6	12.3	12.3