

Table A9. World Carbon Dioxide Emissions by Region, Reference Case, 1990-2025
(Million Metric Tons Carbon Dioxide)

Region/Country	History			Projections				Average Annual Percent Change, 2001-2025
	1990	2000	2001	2010	2015	2020	2025	
Industrialized Countries								
North America	5,769	6,731	6,613	7,677	8,255	8,876	9,659	1.6
United States ^a	4,989	5,787	5,692	6,559	7,028	7,536	8,142	1.5
Canada	473	581	569	686	734	776	830	1.6
Mexico	308	364	352	433	492	565	687	2.8
Western Europe	3,412	3,442	3,465	3,567	3,682	3,832	4,022	0.6
United Kingdom	600	553	563	608	642	665	692	0.9
France	374	401	396	390	398	400	412	0.2
Germany	995	828	819	851	874	943	969	0.7
Italy	415	443	445	486	504	522	540	0.8
Netherlands	211	228	248	263	272	279	286	0.6
Other Western Europe	816	989	994	969	992	1,021	1,123	0.5
Industrialized Asia	1,280	1,526	1,556	1,694	1,770	1,840	1,962	1.0
Japan	987	1,138	1,158	1,239	1,274	1,300	1,356	0.7
Australia/New Zealand	294	387	398	455	497	541	605	1.8
Total Industrialized	10,462	11,699	11,634	12,938	13,708	14,548	15,643	1.2
EE/FSU								
Former Soviet Union	3,798	2,338	2,399	2,600	2,840	3,118	3,393	1.5
Russia	2,405	1,570	1,614	1,792	1,913	2,059	2,186	1.3
Other FSU	1,393	767	785	808	927	1,059	1,207	1.8
Eastern Europe	1,104	756	748	797	827	888	920	0.9
Total EE/FSU	4,902	3,094	3,148	3,397	3,667	4,006	4,313	1.3
Developing Countries								
Developing Asia	3,994	5,709	6,012	7,647	8,863	10,240	11,801	2.9
China	2,262	2,861	3,050	4,063	4,824	5,693	6,666	3.3
India	561	914	917	1,141	1,341	1,575	1,834	2.9
South Korea	234	425	443	563	620	662	720	2.0
Other Asia	937	1,509	1,602	1,881	2,078	2,310	2,581	2.0
Middle East	846	1,262	1,299	1,566	1,729	1,910	2,110	2.0
Turkey	129	184	184	249	280	309	340	2.6
Other Middle East	717	1,078	1,115	1,317	1,448	1,601	1,770	1.9
Africa	656	811	843	971	1,110	1,259	1,413	2.2
Central and South America	703	961	964	1,194	1,358	1,578	1,845	2.7
Brazil	250	343	347	451	531	617	720	3.1
Other Central/South America	453	618	617	744	827	961	1,125	2.5
Total Developing	6,200	8,744	9,118	11,379	13,060	14,987	17,168	2.7
Total World	21,563	23,536	23,899	27,715	30,435	33,541	37,124	1.9

^aIncludes the 50 States and the District of Columbia.

Notes: EE/FSU = Eastern Europe/Former Soviet Union. The U.S. numbers include carbon dioxide emissions attributable to renewable energy sources.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2001*, DOE/EIA-0219(2001) (Washington, DC, February 2003), web site www.eia.doe.gov/iea/. **Projections:** EIA, *Annual Energy Outlook 2004*, DOE/EIA-0383(2004) (Washington, DC, January 2004), Table A19; and System for the Analysis of Global Energy Markets (2004).

Table A10. World Carbon Dioxide Emissions from Oil Use by Region, Reference Case, 1990-2025
(Million Metric Tons Carbon Dioxide)

Region/Country	History			Projections				Average Annual Percent Change, 2001-2025
	1990	2000	2001	2010	2015	2020	2025	
Industrialized Countries								
North America	2,626	2,935	2,962	3,403	3,723	3,968	4,300	1.6
United States ^a	2,165	2,416	2,458	2,786	3,051	3,241	3,473	1.5
Canada	222	258	258	311	332	354	378	1.6
Mexico	239	261	251	306	340	373	449	2.5
Western Europe	1,739	1,853	1,845	1,943	1,990	2,038	2,073	0.5
United Kingdom	242	231	231	251	259	272	293	1.0
France	245	267	267	275	278	279	284	0.2
Germany	376	357	348	366	379	399	404	0.6
Italy	270	261	261	284	289	293	302	0.6
Netherlands	99	98	98	99	102	103	106	0.3
Other Western Europe	507	639	639	667	683	691	684	0.3
Industrialized Asia	768	802	802	870	889	905	942	0.7
Japan	655	667	668	702	704	700	718	0.3
Australia/New Zealand	113	134	134	169	186	205	225	2.2
Total Industrialized	5,133	5,589	5,613	6,215	6,602	6,910	7,315	1.1
EE/FSU								
Former Soviet Union	1,224	547	557	628	718	821	922	2.1
Russia	783	366	369	416	435	480	523	1.5
Other FSU	441	181	189	211	283	341	399	3.2
Eastern Europe	243	189	189	209	226	254	281	1.7
Total EE/FSU	1,468	736	746	837	944	1,074	1,203	2.0
Developing Countries								
Developing Asia	1,116	1,912	1,953	2,665	3,124	3,644	4,174	3.2
China	345	619	642	985	1,187	1,427	1,650	4.0
India	165	279	279	365	456	572	693	3.9
South Korea	138	239	245	287	302	314	335	1.3
Other Asia	468	775	787	1,028	1,178	1,331	1,496	2.7
Middle East	568	753	764	973	1,071	1,187	1,292	2.2
Turkey	64	81	81	102	113	123	135	2.1
Other Middle East	504	672	682	871	959	1,065	1,158	2.2
Africa	304	356	366	443	507	586	660	2.5
Central and South America	533	694	691	834	933	1,065	1,222	2.4
Brazil	210	276	280	332	371	425	487	2.3
Other Central/South America	323	418	411	503	562	640	735	2.5
Total Developing	2,521	3,716	3,774	4,916	5,635	6,482	7,349	2.8
Total World	9,121	10,041	10,134	11,969	13,181	14,466	15,867	1.9

^aIncludes the 50 States and the District of Columbia.

Notes: EE/FSU = Eastern Europe/Former Soviet Union.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2001*, DOE/EIA-0219(2001) (Washington, DC, February 2003), web site www.eia.doe.gov/iea/. **Projections:** EIA, *Annual Energy Outlook 2004*, DOE/EIA-0383(2004) (Washington, DC, January 2004), Table A19; and System for the Analysis of Global Energy Markets (2004).

Table A11. World Carbon Dioxide Emissions from Natural Gas Use by Region, Reference Case, 1990-2025
(Million Metric Tons Carbon Dioxide)

Region/Country	History			Projections				Average Annual Percent Change, 2001-2025
	1990	2000	2001	2010	2015	2020	2025	
Industrialized Countries								
North America	1,207	1,503	1,421	1,715	1,856	2,038	2,152	1.7
United States ^a	1,025	1,249	1,189	1,409	1,510	1,640	1,692	1.5
Canada	127	177	156	211	230	245	266	2.2
Mexico	54	77	77	95	116	152	194	3.9
Western Europe	514	786	799	885	981	1,111	1,281	2.0
United Kingdom	110	188	183	204	236	261	284	1.8
France	57	81	85	93	99	100	108	1.0
Germany	116	165	173	194	222	280	303	2.4
Italy	91	135	136	152	166	182	192	1.4
Netherlands	72	81	83	85	94	102	107	1.1
Other Western Europe	67	134	139	156	165	185	287	3.1
Industrialized Asia	133	209	216	244	270	295	331	1.8
Japan	89	152	157	179	195	209	231	1.6
Australia/New Zealand	44	57	59	65	75	86	99	2.2
Total Industrialized	1,853	2,497	2,436	2,844	3,107	3,443	3,763	1.8
EE/FSU								
Former Soviet Union	1,352	1,103	1,119	1,258	1,405	1,583	1,765	1.9
Russia	928	753	768	842	934	1,037	1,131	1.6
Other FSU	424	351	351	416	471	545	634	2.5
Eastern Europe	167	127	139	205	248	308	322	3.6
Total EE/FSU	1,519	1,231	1,258	1,463	1,653	1,890	2,087	2.1
Developing Countries								
Developing Asia	167	366	419	534	650	796	986	3.6
China	31	59	66	131	181	251	346	7.2
India	24	43	44	67	86	107	134	4.8
South Korea	6	40	44	64	83	105	126	4.5
Other Asia	106	225	266	271	300	334	379	1.5
Middle East	205	406	435	470	524	580	667	1.8
Turkey	7	29	31	61	73	84	96	4.8
Other Middle East	199	377	404	409	452	496	570	1.5
Africa	80	116	130	153	187	221	264	3.0
Central and South America	116	188	200	260	315	389	486	3.8
Brazil	6	18	19	53	88	113	144	8.9
Other Central/South America	110	170	182	207	227	276	342	2.7
Total Developing	569	1,077	1,184	1,416	1,676	1,986	2,402	3.0
Total World	3,941	4,805	4,878	5,724	6,436	7,320	8,253	2.2

^aIncludes the 50 States and the District of Columbia.

Notes: EE/FSU = Eastern Europe/Former Soviet Union.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2001*, DOE/EIA-0219(2001) (Washington, DC, February 2003), web site www.eia.doe.gov/iea/. **Projections:** EIA, *Annual Energy Outlook 2004*, DOE/EIA-0383(2004) (Washington, DC, January 2004), Table A19; and System for the Analysis of Global Energy Markets (2004).

Table A12. World Carbon Dioxide Emissions from Coal Use by Region, Reference Case, 1990-2025
(Million Metric Tons Carbon Dioxide)

Region/Country	History			Projections				Average Annual Percent Change, 2001-2025
	1990	2000	2001	2010	2015	2020	2025	
Industrialized Countries								
North America	1,933	2,293	2,222	2,560	2,676	2,871	3,207	1.5
United States ^a	1,794	2,122	2,042	2,364	2,468	2,654	2,977	1.6
Canada	123	146	155	164	172	177	186	0.8
Mexico	15	25	25	32	36	40	44	2.4
Western Europe	1,159	804	821	740	711	683	669	-0.9
United Kingdom	248	134	149	153	148	132	115	-1.1
France	72	52	44	22	21	21	19	-3.4
Germany	503	306	298	291	273	264	262	-0.5
Italy	54	48	49	49	49	47	47	-0.2
Netherlands	40	49	67	80	76	74	73	0.4
Other Western Europe	242	216	215	145	144	145	152	-1.4
Industrialized Asia	380	515	539	580	611	641	689	1.0
Japan	243	319	334	359	375	392	407	0.8
Australia/New Zealand	137	196	205	221	236	250	282	1.3
Total Industrialized	3,472	3,613	3,581	3,879	3,998	4,195	4,564	1.0
EE/FSU								
Former Soviet Union	1,222	687	723	714	717	715	706	-0.1
Russia	694	452	478	534	544	542	533	0.5
Other FSU	528	236	245	181	173	173	174	-1.4
Eastern Europe	694	440	420	382	353	326	317	-1.2
Total EE/FSU	1,915	1,127	1,143	1,097	1,070	1,041	1,024	-0.5
Developing Countries								
Developing Asia	2,710	3,431	3,639	4,448	5,089	5,799	6,641	2.5
China	1,886	2,183	2,342	2,946	3,456	4,016	4,669	2.9
India	371	592	594	709	798	895	1,007	2.2
South Korea	90	146	155	212	234	243	259	2.2
Other Asia	363	509	549	581	600	645	706	1.1
Middle East	73	103	100	123	133	142	150	1.7
Turkey	59	74	71	86	95	102	109	1.8
Other Middle East	14	29	29	37	38	40	41	1.5
Africa	272	339	347	375	416	453	489	1.4
Central and South America	54	78	73	100	110	124	137	2.7
Brazil	34	49	48	66	72	79	88	2.6
Other Central/South America	20	30	25	34	38	45	49	2.8
Total Developing	3,110	3,951	4,160	5,046	5,749	6,519	7,417	2.4
Total World	8,497	8,691	8,884	10,022	10,817	11,755	13,004	1.6

^aIncludes the 50 States and the District of Columbia.

Notes: EE/FSU = Eastern Europe/Former Soviet Union.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2001*, DOE/EIA-0219(2001) (Washington, DC, February 2003), web site www.eia.doe.gov/iea/. **Projections:** EIA, *Annual Energy Outlook 2004*, DOE/EIA-0383(2004) (Washington, DC, January 2004), Table A19; and System for the Analysis of Global Energy Markets (2004).

Table A13. World Total Energy Consumption in Oil-Equivalent Units by Region, Reference Case, 1990-2025
(Million Tons Oil Equivalent)

Region/Country	History			Projections				Average Annual Percent Change, 2001-2025
	1990	2000	2001	2010	2015	2020	2025	
Industrialized Countries								
North America	2,534	2,990	2,912	3,389	3,645	3,907	4,197	1.5
United States ^a	2,131	2,503	2,446	2,817	3,018	3,224	3,439	1.4
Canada	278	331	315	388	417	441	465	1.6
Mexico	126	156	151	185	210	242	293	2.8
Western Europe	1,509	1,685	1,718	1,794	1,859	1,932	2,008	0.7
United Kingdom	234	246	247	261	271	283	295	0.7
France	222	261	265	298	310	324	337	1.0
Germany	373	357	362	373	381	391	401	0.4
Italy	177	201	204	214	223	232	241	0.7
Netherlands	85	99	107	110	114	118	122	0.6
Other Western Europe	418	520	533	537	560	584	613	0.6
Industrialized Asia	563	692	699	771	807	841	885	1.0
Japan	452	548	552	603	623	641	662	0.8
Australia/New Zealand	111	144	147	168	183	200	223	1.8
Total Industrialized	4,606	5,366	5,329	5,954	6,311	6,680	7,091	1.2
EE/FSU								
Former Soviet Union	1,529	1,029	1,055	1,163	1,274	1,388	1,507	1.5
Russia	991	690	711	791	852	911	965	1.3
Other FSU	538	339	345	373	422	477	542	1.9
Eastern Europe	393	285	287	323	347	383	399	1.4
Total EE/FSU	1,923	1,314	1,342	1,487	1,621	1,771	1,906	1.5
Developing Countries								
Developing Asia	1,322	2,029	2,143	2,786	3,268	3,792	4,369	3.0
China	681	931	1,000	1,376	1,654	1,958	2,294	3.5
India	196	319	322	413	492	584	682	3.2
South Korea	95	199	203	256	284	309	335	2.1
Other Asia	350	580	617	741	838	941	1,058	2.3
Middle East	329	511	524	629	699	774	860	2.1
Turkey	50	76	73	94	105	116	127	2.3
Other Middle East	280	435	451	535	594	657	733	2.0
Africa	235	301	314	367	421	479	542	2.3
Central and South America	364	529	527	640	715	812	929	2.4
Brazil	150	228	221	265	304	347	396	2.5
Other Central/South America	214	302	306	375	411	465	533	2.3
Total Developing	2,250	3,371	3,508	4,422	5,103	5,856	6,700	2.7
Total World	8,779	10,052	10,179	11,863	13,036	14,308	15,697	1.8

^aIncludes the 50 States and the District of Columbia.

Notes: EE/FSU = Eastern Europe/Former Soviet Union.

Sources: **History:** Energy Information Administration (EIA), *International Energy Annual 2001*, DOE/EIA-0219(2001) (Washington, DC, February 2003), web site www.eia.doe.gov/iea/. **Projections:** EIA, *Annual Energy Outlook 2004*, DOE/EIA-0383(2004) (Washington, DC, January 2004), Table A1; and System for the Analysis of Global Energy Markets (2004).

Table A14. World Population by Region, Reference Case, 1990-2025
(Millions)

Region/Country	History			Projections				Average Annual Percent Change, 2001-2025
	1990	2000	2001	2010	2015	2020	2025	
Industrialized Countries								
North America	366	405	417	456	476	495	514	0.9
United States ^a	255	276	286	309	322	335	348	0.8
Canada	28	31	31	33	34	35	36	0.6
Mexico	83	99	100	113	120	125	130	1.1
Western Europe	376	390	391	396	397	397	397	0.1
United Kingdom	57	59	59	60	61	62	63	0.3
France	57	59	60	62	63	64	64	0.3
Germany	79	82	82	83	82	82	82	0.0
Italy	57	58	57	57	56	54	53	-0.3
Netherlands	15	16	16	17	17	17	17	0.3
Other Western Europe	112	116	117	118	118	118	117	0.0
Industrialized Asia	144	150	150	153	153	152	151	0.0
Japan	124	127	127	128	127	126	123	-0.1
Australia/New Zealand	20	23	23	25	26	27	28	0.7
Total Industrialized	886	946	959	1,005	1,026	1,045	1,061	0.4
EE/FSU								
Former Soviet Union	290	290	289	283	280	277	272	-0.2
Russia	148	146	145	138	133	129	124	-0.6
Other FSU	141	144	144	145	147	148	148	0.1
Eastern Europe	122	121	121	119	118	117	115	-0.2
Total EE/FSU	412	411	410	402	398	393	387	-0.2
Developing Countries								
Developing Asia	2,791	3,246	3,288	3,658	3,850	4,022	4,168	1.0
China	1,155	1,275	1,285	1,365	1,402	1,429	1,445	0.5
India	846	1,017	1,033	1,174	1,246	1,312	1,369	1.2
South Korea	43	47	47	49	50	50	50	0.3
Other Asia	746	907	923	1,071	1,152	1,230	1,304	1.4
Middle East	193	242	247	294	322	349	375	1.8
Turkey	58	68	69	78	82	86	89	1.0
Other Middle East	136	174	178	216	240	263	286	2.0
Africa	622	796	814	984	1,085	1,188	1,292	1.9
Central and South America	358	421	428	481	509	534	557	1.1
Brazil	149	172	174	193	202	210	216	0.9
Other Central/South America	210	250	254	288	307	324	341	1.2
Total Developing	3,965	4,705	4,777	5,418	5,765	6,092	6,392	1.2
Total World	5,263	6,061	6,145	6,825	7,190	7,531	7,841	1.0

^aIncludes the 50 States and the District of Columbia.

Notes: EE/FSU = Eastern Europe/Former Soviet Union. Totals may not equal sum of components due to independent rounding.

Sources: **United States:** Energy Information Administration, *Annual Energy Outlook 2004*, DOE/EIA-0383(2004) (Washington, DC, January 2004), Table A20. **Other Countries:** United Nations, Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, *The 2002 Revision and World Urbanization Prospects* (New York, NY, July 11, 2003).

