

Table 12.1 Emissions of Greenhouse Gases, 1980-2007

Year	Greenhouse Gases				Greenhouse Gases, Based on Global Warming Potential ¹				
	Carbon Dioxide ^{2,3}	Methane	Nitrous Oxide	HFCs PFCs SF ₆	Carbon Dioxide ²	Methane	Nitrous Oxide	HFCs PFCs SF ₆	Total
	Million Metric Tons of Gas				Million Metric Tons Carbon Dioxide Equivalent ²				
1980	4,824.7	28.6	1.0	--	4,824.7	658.0	287.0	70.4	5,840.0
1981	4,704.3	29.2	1.0	--	4,704.3	671.1	292.0	74.0	5,741.3
1982	4,448.8	29.4	1.0	--	4,448.8	676.8	282.6	55.4	5,463.7
1983	4,408.0	29.1	.9	--	4,408.0	669.9	270.2	67.1	5,415.3
1984	4,655.8	29.8	1.0	--	4,655.8	684.5	294.0	75.5	5,709.9
1985	4,638.3	30.0	1.1	--	4,638.3	689.7	330.7	70.5	5,729.3
1986	4,642.5	29.4	1.1	--	4,642.5	676.5	323.8	75.0	5,717.8
1987	4,800.2	29.9	1.1	--	4,800.2	688.3	323.4	77.8	5,889.8
1988	5,012.6	30.1	1.1	--	5,012.6	692.0	316.9	91.3	6,112.8
1989	5,105.8	30.2	1.1	--	5,105.8	693.8	332.8	94.5	6,226.9
1990	R5,021.4	R31.3	1.1	--	R5,021.4	R782.1	R336.0	R102.4	R6,241.8
1991	R4,973.5	R31.1	1.2	--	R4,973.5	R778.4	R345.2	R93.2	R6,190.4
1992	R5,084.1	R31.2	1.2	--	R5,084.1	R781.0	R352.4	R98.1	R6,315.6
1993	R5,207.4	R30.1	1.2	--	R5,207.4	R753.3	R351.8	R96.5	R6,409.1
1994	R5,293.6	R30.2	1.3	--	R5,293.6	R754.7	R377.5	R97.2	R6,522.9
1995	R5,348.4	R30.1	1.2	--	R5,348.4	R752.6	R359.7	R114.6	R6,575.2
1996	R5,534.2	R29.2	1.2	--	R5,534.2	R729.1	R360.2	R124.8	R6,748.2
1997	R5,610.9	R29.2	1.2	--	R5,610.9	R730.0	R353.1	R132.1	R6,826.0
1998	R5,637.9	R27.9	1.2	--	R5,637.9	R696.5	R351.0	R150.6	R6,836.0
1999	R5,708.1	R27.6	1.2	--	R5,708.1	R690.6	R348.9	R149.0	R6,896.6
2000	R5,892.6	R27.4	1.2	--	R5,892.6	R685.7	R344.6	R152.1	R7,075.0
2001	R5,806.9	R26.8	1.1	--	R5,806.9	R670.1	R339.3	R141.4	R6,957.7
2002	R5,880.5	R27.0	1.1	--	R5,880.5	R674.2	R335.4	R153.6	R7,043.7
2003	R5,938.7	R27.1	1.1	--	R5,938.7	R676.5	R334.6	R149.0	R7,098.8
2004	R6,023.9	R27.2	1.2	--	R6,023.9	R679.7	R361.5	R165.0	R7,230.1
2005	R6,032.3	R27.2	1.2	--	R6,032.3	R679.4	R370.8	R174.5	R7,256.9
2006	R5,945.8	R27.5	1.3	--	R5,945.8	R686.9	R375.7	R171.3	R7,179.7
2007 ^P	6,021.8	28.0	1.3	--	6,021.8	699.9	383.9	176.9	7,282.4

¹ Emissions of greenhouse gases are weighted based upon their relative global warming potential (GWP), with carbon dioxide equal to a weight of one. See "Global Warming Potential" in Glossary.

² Metric tons of carbon dioxide can be converted to metric tons of carbon equivalent by multiplying by 12/44.

³ Carbon dioxide data in this table differ from those for the United States in Table 11.19 because data in this table exclude emissions from international bunker fuels consumption; include emissions from geothermal power generation, cement production and other industrial processes, and municipal solid waste combustion; and include data for the U.S. Territories.

R=Revised. P=Preliminary. -- = Not applicable because these gases cannot be summed in native units.

Notes: • HFCs = hydrofluorocarbons; PFCs = perfluorocarbons; and SF₆ = sulfur hexafluoride.

• Emissions are from anthropogenic sources. "Anthropogenic" means produced as the result of human activities, including emissions from agricultural activity and domestic livestock. Emissions from natural sources, such as wetlands and wild animals, are not included. • Because of the continuing goal to improve estimation methods for greenhouse gases, data are frequently revised on an annual basis in keeping with the latest findings of the international scientific community. Revisions reflect updates to GWP estimates, as well as to energy consumption data. • For information on units for measuring greenhouse gases, see [http://www.eia.doe.gov/oiaf/1605/ggrpt/pdf/0573\(2007\).pdf](http://www.eia.doe.gov/oiaf/1605/ggrpt/pdf/0573(2007).pdf), page 10, box titled "Units for Measuring Greenhouse Gases." • Totals may not equal sum of components due to independent rounding.

Web Page: For related information, see <http://www.eia.doe.gov/environment.html>.

Sources: Energy Information Administration (EIA), *Emissions of Greenhouse Gases in the United States 2007* (December 2008), Table 1; and EIA, Office of Integrated Analysis and Forecasting, estimates.