

**Table 12.5 Methane Emissions, 1980-2007**  
(Million Metric Tons of Methane)

Year	Energy Sources					Waste Management			Agricultural Sources					Industrial Processes <sup>9</sup>	Total <sup>5</sup>	
	Coal Mining	Natural Gas Systems <sup>1</sup>	Petroleum Systems <sup>2</sup>	Mobile Combustion <sup>3</sup>	Stationary Combustion <sup>4</sup>	Total <sup>5</sup>	Landfills	Waste-water Treatment <sup>6</sup>	Total <sup>5</sup>	Enteric Fermentation <sup>7</sup>	Animal Waste <sup>8</sup>	Rice Cultivation	Crop Residue Burning			Total <sup>5</sup>
1980	3.05	4.25	NA	0.28	0.81	8.39	10.50	0.52	11.02	5.47	3.04	0.48	0.04	9.04	0.13	28.59
1981	2.80	4.86	NA	.27	.82	8.75	10.67	.53	11.20	5.56	2.90	.54	.05	9.05	.14	29.13
1982	3.23	4.89	NA	.27	.88	9.26	10.61	.54	11.15	5.50	2.80	.47	.05	8.81	.10	29.32
1983	3.02	4.85	NA	.27	.86	9.00	10.65	.54	11.19	5.46	2.85	.31	.03	8.66	.11	28.96
1984	3.60	4.95	NA	.27	.86	9.68	10.66	.66	11.32	5.33	2.77	.40	.04	8.55	.11	29.66
1985	3.88	5.00	NA	.26	.84	9.98	10.63	.67	11.30	5.27	2.77	.36	.05	8.45	.11	29.83
1986	3.73	4.88	NA	.26	.82	9.69	10.51	.68	11.18	5.13	2.71	.34	.04	8.22	.10	29.20
1987	4.01	4.98	NA	.25	.80	10.04	10.61	.68	11.29	5.08	2.76	.33	.04	8.21	.11	29.65
1988	3.93	5.13	NA	.25	.83	10.14	10.49	.69	11.18	5.10	2.77	.41	.03	8.31	.12	29.76
1989	3.96	5.29	NA	.25	.86	10.36	10.41	.70	11.11	5.08	2.68	.38	.04	8.18	.12	29.77
1990	R4.26	R5.62	1.30	.24	.56	R11.98	R10.34	.89	R11.22	R5.62	1.89	.40	.04	R7.96	.12	R31.28
1991	R4.09	R5.84	1.31	.24	.59	R12.07	R10.04	.90	R10.94	R5.58	1.99	.40	.04	R8.01	.11	R31.14
1992	4.05	R5.90	1.27	.23	.62	R12.07	R9.91	.92	R10.84	R5.70	R2.02	.45	.05	R8.21	.12	R31.24
1993	R3.39	R5.89	1.21	.23	.54	R11.26	R9.69	.93	R10.63	R5.60	2.07	.41	.04	R8.12	.12	R30.13
1994	3.51	R5.90	1.18	.22	.51	R11.33	R9.34	.95	R10.30	R5.75	2.15	.48	.05	R8.43	.13	R30.19
1995	R3.65	R6.00	1.17	.21	.51	R11.54	R8.95	.97	R9.91	R5.86	2.17	.44	.04	R8.51	.13	R30.10
1996	R3.20	R6.02	1.15	.21	.53	R11.11	R8.58	.98	R9.55	R5.74	R2.17	.41	.05	R8.37	.13	R29.16
1997	R3.48	R6.29	R1.15	.21	.44	11.56	R8.11	.99	R9.10	R5.61	R2.30	.45	.05	R8.40	.13	R29.20
1998	R2.87	R6.27	1.11	R.20	.39	R10.84	R7.51	1.00	R8.51	R5.52	2.33	.47	.05	R8.37	.13	R27.86
1999	3.11	R6.28	R1.05	.20	.40	R11.04	R7.07	1.02	R8.08	R5.52	R2.30	.50	.05	R8.37	.13	R27.62
2000	R2.97	R6.58	R1.04	R.20	.43	R11.21	R6.80	1.02	R7.82	R5.48	R2.30	.44	.05	R8.27	.13	R27.43
2001	2.96	R6.40	1.03	.19	.38	R10.97	R6.44	1.02	R7.46	R5.43	2.32	.47	.05	R8.27	.11	R26.81
2002	2.79	R6.71	1.02	.19	.39	R11.10	R6.45	1.03	R7.48	R5.44	R2.34	R.44	.05	R8.27	.12	R26.97
2003	R2.80	R6.67	1.01	.18	.41	R11.07	R6.54	1.03	R7.57	R5.47	2.36	.43	.05	R8.31	.12	R27.06
2004	R2.94	R6.75	.97	R.19	.41	R11.25	R6.48	1.04	R7.52	R5.39	2.38	.47	.06	R8.30	.12	R27.19
2005	R2.81	R6.72	.93	.20	R.45	R11.11	R6.50	1.04	R7.54	R5.48	R2.42	R.46	.05	R8.41	.11	R27.17
2006	R2.86	R6.85	.92	R.20	R.41	R11.23	R6.57	1.06	R7.63	R5.54	R2.52	R.39	.05	R8.51	R.11	R27.48
2007 <sup>P</sup>	2.84	7.06	.92	.20	.46	11.48	6.76	1.07	7.83	5.54	2.60	.39	.06	8.58	.11	28.00

<sup>1</sup> Natural gas production, processing, and distribution; processing is not included in 1980 and is incompletely covered in 1981-1989.

<sup>2</sup> Petroleum production, refining, and distribution.

<sup>3</sup> Emissions from passenger cars, trucks, buses, motorcycles, and other transport.

<sup>4</sup> Consumption of coal, petroleum, natural gas, and wood for heat or electricity.

<sup>5</sup> See notes on components for specific coverage, which is inconsistent prior to 1990 in some cases.

<sup>6</sup> 1980-1984, domestic wastewater only; 1985 forward, industrial and domestic wastewater.

<sup>7</sup> Methane emitted as a product of digestion in animals such as cattle, buffalo, sheep, goats, and camels.

<sup>8</sup> Estimation methods for 1990 forward reflect a shift in waste management away from liquid systems to dry-lot systems, thus lowering emissions.

<sup>9</sup> Chemical production, and iron and steel production.

R=Revised. P=Preliminary. NA=Not available.

Notes: • 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. • Under certain conditions, methane may be produced via anaerobic decomposition of organic materials in landfills, animal wastes, and rice paddies. • 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. • 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), Tables 16-20; and EIA, Office of Integrated Analysis and Forecasting, estimates.