

Table 1. Global Atmospheric Concentrations of Selected Greenhouse Gases

Item	Carbon Dioxide	Methane	Nitrous Oxide	Sulfur Hexafluoride	Perfluoromethane
	(parts per million)			(parts per trillion)	
Pre-industrial (1750) Atmospheric Concentration	278	0.700	0.270	0	40
1998 Atmospheric Concentration	365	1.745	0.314	4.2	80
Average Annual Change, 1990-1999	1.5 ^a	0.007 ^a	0.0008	0.2	1.0
Atmospheric Lifetime (Years)	50–200 ^b	12 ^c	114 ^c	3,200	>50,000

^aThe rate has fluctuated between 0.9 and 2.8 parts per million per year for CO₂ and between 0 and 0.013 parts per million per year for methane over the 1990-1999 period.

^bNo single lifetime can be defined for CO₂ because uptake rates differ for different removal processes.

^cThis lifetime has been defined as an “adjustment time” that takes into account the indirect effect of the gas on its own residence time.

Source: Intergovernmental Panel on Climate Change, *Climate Change 2001: The Scientific Basis* (Cambridge, UK: Cambridge University Press, 2001), pp. 38 and 244.