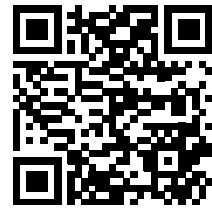


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# Greenhouse Gases and Climate Change



In our atmosphere, certain gases such as carbon dioxide ( \_\_\_\_\_ ), methane, and nitrous oxide trap heat from the sun. This process is crucial for making Earth's \_\_\_\_\_ habitable by maintaining the planet's temperature. However, human \_\_\_\_\_, especially the burning of fossil fuels, have increased the concentration of these \_\_\_\_\_, leading to more heat being trapped than is natural. This excess \_\_\_\_\_ causes global temperatures to rise, a phenomenon known as climate \_\_\_\_\_.

One of the most significant sources of CO<sub>2</sub> is the combustion of \_\_\_\_\_ and coal for electricity and transportation. Deforestation also plays a critical \_\_\_\_\_ because trees that absorb CO<sub>2</sub> are cut down, reducing the Earth's capacity to \_\_\_\_\_ this greenhouse gas. Methane, another potent greenhouse \_\_\_\_\_, is released during the production and transport of coal, oil, and natural gas. It also comes from \_\_\_\_\_ and other agricultural practices.

Nitrous oxide \_\_\_\_\_ come from agricultural and industrial activities, as well as combustion of fossil \_\_\_\_\_ and solid waste. Another contributor to climate change is the increase in fluorinated gases, used in air conditioning and \_\_\_\_\_. These gases have a much higher capacity to trap heat in the \_\_\_\_\_ than CO<sub>2</sub>, making them extremely potent, even in small \_\_\_\_\_.

The impact of these greenhouse gases on the earth's climate is profound. They cause \_\_\_\_\_ patterns to change, sea levels to rise, and increase the frequency of extreme weather \_\_\_\_\_. To combat climate change, it's crucial to reduce the emission of these gases, increase the earth's \_\_\_\_\_ to absorb CO<sub>2</sub>, and transition to renewable energy sources.

weather change atmosphere quantities activities gases climate heat  
events CO<sub>2</sub> fuels absorb gas emissions role petroleum capacity  
refrigeration livestock