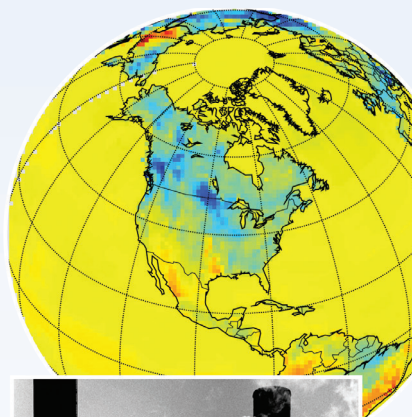
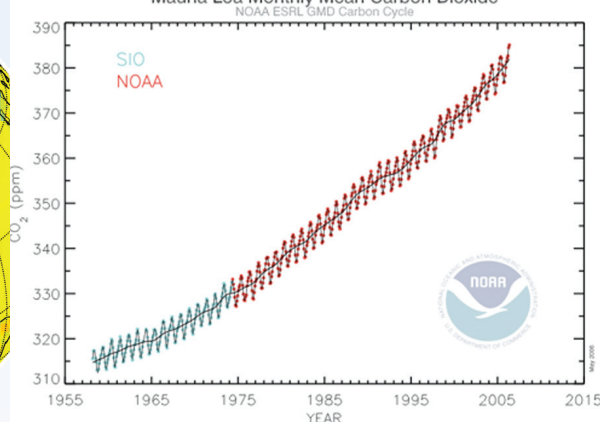


## Tracking CO<sub>2</sub>: A Global Climate Record

**CarbonTracker, a newly-released tool visualizing global CO<sub>2</sub> measurements, is a valued resource for corporate and government sectors in evaluating the effectiveness of their carbon emission reduction efforts.**



Mauna Loa Monthly Mean Carbon Dioxide



**The “Keeling Curve,” an iconic example of climate change**

The striking profile of the last half century’s rising carbon dioxide levels, known among scientists as “the Keeling Curve,” has become an icon of climate change science. This longest-continuous record of atmospheric carbon dioxide (CO<sub>2</sub>) concentration in the world, found its roots first at the South Pole and shortly thereafter at NOAA’s Mauna Loa Observatory in Hawaii. At the time this work began, very little was known about CO<sub>2</sub> levels in the environment.

Just over 50 years ago, Charles Keeling plotted the first data points on his graph from data collected at both locations. Keeling, an atmospheric scientist at Scripps Institute of Oceanography, along with colleague Roger Revelle and others, were in pursuit of a theoretical model speculating that

accelerated burning of fossil fuels could potentially alter the Earth’s climate dramatically by increasing atmospheric CO<sub>2</sub>. A feat of historic proportions, Keeling’s legacy lives on as OAR’s Earth System Research Laboratory (ESRL) researchers continue to collect data at the Mauna Loa Observatory daily. The U.S. Department of Energy’s Carbon Dioxide Information Analysis Center (CDIAC), one of many portals for these data, has logged over 10,000 requests for the Mauna Loa CO<sub>2</sub> records since 1984, when Keeling first made the dataset available to CDIAC.

Keeling’s work stimulated formation of an international global climate observations network, which provides valuable input into assessments of global climate change, most notably, the Intergovernmental Panel on Climate Change (IPCC) Assessments.

Expanding on the Mauna Loa record, ESRL researchers developed a new tool, CarbonTracker, which visualizes global CO<sub>2</sub> measurements. Released in 2007, CarbonTracker is of interest to corporate and government sectors that seek to evaluate the effectiveness of efforts to reduce or store carbon emissions. CarbonTracker is a NOAA contribution to the North American Carbon Program.

### Learn More:

[www.mlo.noaa.gov](http://www.mlo.noaa.gov)

[www.co2conference.org](http://www.co2conference.org)

[www.esrl.noaa.gov/gmd/ccgg/carbontracker](http://www.esrl.noaa.gov/gmd/ccgg/carbontracker)

*Images, top to bottom: CarbonTracker graphic; carbon dioxide emissions.*