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Simple ways to prevent carbon dioxide buildup

The greenhouse effect first gained national attention during the 1980s. The effect itself is a natural phenomenon by which gases in our planet's atmosphere trap heat from the sun. Human activities, however, have steadily increased the levels of these gases, which will, according to current climate models, lead to rapid global warming. Such warming poses severe threats to life as we know it: rising sea levels, continuous and worsening drought and decreased agricultural production.

During the past century, the combined effects of industrialization and deforestation have increased the amount of carbon dioxide – the main greenhouse gas – in the atmosphere by almost 20 percent. Along with this increase in carbon dioxide, the average global temperature has increased about 1 degree Fahrenheit.

While this small temperature change has not caused a global catastrophe, a report in Science magazine has linked this temperature increase to the recent drought in northern Africa. The report is based on the fact that as rainfall has decreased in north Africa, the rainfall in southern Europe has increased by a corresponding amount. This shift in rainfall patterns has been devastating to countries such as Ethiopia and Somalia, which already suffer from overpopulation and civil war.

Carbon dioxide continues to accumulate; each year 6 billion tons of carbon dioxide are added to the atmosphere. How soon we in the United States will feel the effects of this buildup is unclear. What is not unclear is that we need to act now to reduce the amount of carbon dioxide entering our atmosphere before we irreversibly condemn ourselves to a fiery future.

The United States represents only 6 percent of the world's population, yet we release more than 25 percent of the world's carbon dioxide. Although our federal government refuses to take action to reduce these emissions, you can take the lead and start reducing your contribution to carbon dioxide buildup by conserving energy. It's also a great way to save money. Here are a few ideas:

- Set your thermostat at 65 during the day and 60 at night during the winter. Installing an inexpensive electronic clock thermostat will simplify changing the settings. In the summer, set your air conditioner to 78.
- Replace your light bulbs with energy efficient compact fluorescents. Each fluorescent bulb will save you more than $20 during its lifetime and prevent the release of 160 pounds of carbon dioxide per year. The city is initiating a program called "Lighten Up," which will offer a $7.50 rebate for the first compact fluorescent that you buy. Commercial customers are eligible for five rebates. Within the next few days, you will receive information about this program in the mail.
- Put an insulating jacket around your water heater and set its thermostat at 120 degrees. Insulating kits are available from local hardware stores.
- Almost 90 percent of the energy used when washing clothes is used to heat the water. Try washing clothes in warm or cold water instead of hot; all rinses should be done with cold water.
- Trees help reduce atmospheric carbon dioxide by converting it to oxygen, so every tree you plant – or don't cut down – will help reduce the amount of carbon dioxide in the air.
- For every two miles that you walk, bike or car pool instead of driving, you will prevent the release of about one pound of carbon dioxide. When you drive, make sure your car achieves its maximum mileage by keeping it in tune and the tires properly inflated. Correctly inflated tires affect your mileage more than you think; underinflated tires will decrease your fuel economy by one mile per gallon and cause your vehicle to release an extra 250 pounds of carbon dioxide each year.
- Recycle. Manufacturing an aluminum can from recycled aluminum is 95 percent more energy efficient than making it from raw ore. Recycling one can every day for a year will prevent 140 pounds of carbon dioxide from entering the atmosphere. A bottle recycled each day equals 100 pounds less carbon dioxide per year. And recycling a newspaper every day for a year means 50 pounds less carbon dioxide released.

For more information on global warming and the greenhouse effect, consult: "Fight Global Warming" by Sarah Clark, "Hothouse Earth" by John Gribbin, "Dead Heat" by Michael Oppenheimer and Robert Boyle; and "Global Climate Change and Life on Earth" by Richard Wyman.

For information on energy conservation, call the city's water and light utility at 874-7325.

If you have a suggestion for a column, a gripe, a success story or whatever, write it down and send it to me, care of the Columbia Daily Tribune, PO Box 798, Columbia, Mo., 65205.