

# Climate Change, Air Pollution, Energy Use

Average global temperatures at the Earth's surface have increased since the late 19th century, leading to a rise in sea level, reduced snow cover, and changes in behavior of wildlife. While some of this change in climate is natural, there is strong evidence that a significant portion is due to human activities which cause a buildup of "greenhouse gases" in the atmosphere. Carbon dioxide, methane, nitrous oxide, and other gases are called that because concentrating them in the atmosphere traps heat, much as the glass traps heat in a greenhouse.

Although scientists do not know *exactly* how the Earth's climate responds to increases in greenhouse gases, they do know that the current warming trend is consistent with changes that would be expected from the increase in greenhouse gases.

Whether or not you believe that burning fossil fuels and other human activities are the primary reason for the increased concentration of carbon dioxide in the atmosphere, reducing emissions is desirable to prevent the health effects of breathing polluted air.

Fossil fuels burned to run cars and trucks, heat homes and businesses, and power factories are responsible for almost 99 percent of U.S. carbon dioxide emissions and about 20 percent of our nitrous oxide emissions. Increased agriculture, deforestation, landfills, industrial production, and mining also contribute a significant share of carbon dioxide, methane, and other greenhouse gas emissions.

**Impacts on Wildlife.** Global warming has altered bird migration routes, plant blooming cycles, and the breeding habits of animals and plants across the continent. Texas is home to an incredible diversity of native wildlife species, including 477 birds, 159 mammals, 149 reptiles, 175 fish, and 71 amphibians. Rising temperatures and sea levels will likely change the makeup of entire ecosystems, forcing wildlife to shift their ranges or adapt. Higher average temperatures are likely to make conditions more favorable for invasive species such as the Chinese tallow to out-compete native vegetation. This tree increased 30-fold in southeast Texas between 1981-1995.

## The 2% Solution

Scientists are saying that we must reduce the air emissions that lead to global warming by 80% by 2050 to avoid the worst impacts of climate change. That means reducing our emissions by 2% per year for the next 40 years.

The "2% Solution" won't avoid all impacts of climate change -- some are inevitable due to past actions. But the more drastic results projected by climate models can be avoided if we start NOW to make a difference.

**Reduce Your Energy Use – For Tips on How:** <http://www.tcatexas.org/documents/GLOBALWARMINGFLYER-Master.pdf>

### What YOU Can Do!

Go to NWF's **Climate Action Center** site <http://online.nwf.org/site/PageServer?pagename=ClimateAction> to get the latest news about what you can do to help.

Check out the site often!

