



Humans are Responsible

The world's preeminent atmospheric scientists conclude that our global climate is changing because humans are adding large amounts of heat-trapping gases to the atmosphere. The level of carbon dioxide in our atmosphere has increased by approximately 30% in the past 100 years with a corresponding 1° F rise in the average global temperature. Every time we drive a car, use electricity from coal-fired power plants, or heat our homes with oil or natural gas, we release carbon dioxide and other gases which trap heat by creating a blanket effect around the planet. The increase in trapped heat changes the climate, causing altered weather patterns that can bring unusually intense precipitation or dry spells and more severe storms. These gases remain in the atmosphere for decades to centuries, so our choices today will affect the climate our children and grandchildren inherit.

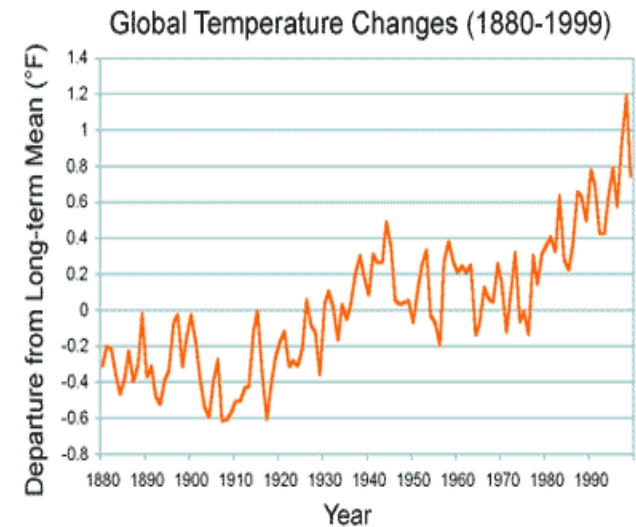
Threats to Health, Economy, and the Environment

California's environment and economy will likely be significantly affected by the impending change in climate. Climate scientists predict considerable increases in global temperature over the next century.

- Temperatures are predicted to increase by about 4 – 10° F by the end of the century.
- Warmer temperatures and drier conditions are expected to increase fire frequency.
- Warmer winter and spring temperatures will likely reduce snowpack in the Sierra Nevada by 30-70% causing reductions in the water supply by as much as 30%, with cascading impacts on winter recreation, streamflow and water storage.
- Temperature increases will likely cause rapid changes in the distribution of native plants and animals, resulting in loss of diversity. Losses of alpine and subalpine vegetation could reach 40 to 50% before 2050.
- Global sea level has risen 4-8 inches over the past century and will continue rising over the next century, which could increase storm damage, erosion, and flooding of valuable real estate and rich wetland ecosystems. Higher sea levels could also allow saltwater intrusion into aquifers and the rich

ecosystems found at the mouths of rivers.

- California's \$30 billion agricultural industry could be hurt by more frequent water shortages and higher temperatures. The quality and value of dairy products and wine grapes are particularly at risk.
- Human health will be affected in numerous ways, including increased heat stress, changes in the incidence of infectious disease, and higher risk of respiratory illness. Heat waves are expected to be more intense increasing heat-related mortality by 2-3 times.



Source: National Climatic Data Center, 2000. Climate of 1999 - Annual Review.
Online at <http://www.ncdc.noaa.gov/climate/research/1999/ann/ann99.html>

You Can Make Difference

Individual choices can have a significant effect on global climate change. Every person has the power to create change by taking personal actions. Taking the responsibility to find practical ways to reduce your emission of heat-trapping gases means making smart choices from purchasing energy-efficient products to using more fuel efficient forms of transportation.

- When you buy a new car, choose one with the best fuel economy, like a hybrid.
- Reduce your miles per person driven by carpooling, riding mass transit, walking, biking, and/or making fewer trips.
- Turn off idling vehicles when possible.
- Use clean power by encouraging your utility company to offer more electricity from renewable sources.
- Take advantage of home energy audits offered by your utility company.
- Replace your incandescent light bulbs with more efficient compact fluorescent bulbs. Turn off lights/appliances when not in use.
- When you replace an appliance, look for the Energy Star label (refrigerators, furnaces, air conditioners, water heaters).
- Reduce, reuse and recycle.
- Let policy makers know you are concerned about global warming.

Get Involved!

The Loma Prieta Chapter of the Sierra Club has initiated a Global Warming Campaign to help reduce the build-up of greenhouse gasses by taking actions to encourage individuals, businesses, and government agencies to increase their use of renewable energy and energy efficiency technology, and to reduce their consumption of gasoline.

Join Sierra Club's Global Warming Campaign

Please contact Stan Van Velsor
3921 E. Bayshore Road # 204
Palo Alto, CA 94303
Phone: 650/390-8441
<stan.van.velsor@sierraclub.org

Make a Tax Deductible Donation to Support the Loma Prieta Chapter's Charitable Activities (Please make checks payable to the Sierra Club Foundation with Loma Prieta Chapter in notation area)

Name _____
Address _____
City/Zip Code _____
Phone _____



Global Warming: A Threat We Can No Longer Afford to Ignore

Global warming is one of the most pressing issues of our time. The Intergovernmental Panel on Climate Change, an international body made up of 2,000 of the world's leading climate scientists, has concluded that a gradual warming of our climate is underway. These scientists predict that during our children's lifetimes, global warming could raise the average temperature of the planet by as much as 10 degrees Fahrenheit. In fact, some regions of the world have already warmed by 5 degrees Fahrenheit. The 1990s were the hottest decade of the entire century; perhaps even the last 2000 years.

