



# CLIMATE CHANGE

## AND NEW JERSEY



## What is climate change?

There is broad scientific consensus that the earth's climate is changing rapidly, and that emissions of heat-trapping gases -- mostly carbon dioxide (CO<sub>2</sub>) -- from human activities are contributing significantly to those changes.

Greenhouse gases like CO<sub>2</sub>, water vapor and methane have kept the planet's temperature suitable for life for millions of years. Since the mid-1800's, however, the burning of fossil fuel (oil, coal and natural gas) for energy has caused CO<sub>2</sub> and other greenhouse gases to build up in the atmosphere. In many parts of the world, clearing and burning of forests has compounded the problem because trees and soil store carbon. In New Jersey, vehicles, power plants, and industry are major sources of greenhouse gas emissions.

Scientists are finding that temperatures throughout the world are rising on land, in the air, at sea surface and under ice. A few degrees doesn't sound like much, but can cause dramatic shifts in weather patterns such as cloud cover, precipitation, wind, snow and ice cover, and the duration of seasons. Data show that these changes are already occurring in New Jersey and around the world.

## How will climate change affect New Jersey?

Climate change poses a very real threat to New Jersey's environment and economy, especially for the state's coastal regions, agriculture, fishing and tourism industries, wildlife and public health. As a coastal state, New Jersey is particularly vulnerable to the effects of climate change.

### SEA-LEVEL RISE

Sea level rises when glaciers melt and when ocean water expands as it warms. Even a slight sea-level rise would have substantial impacts on New Jersey's coast, accelerating beach erosion and flooding that could devastate coastal communities, infrastructure, transportation systems, and the state's \$30 billion tourism industry.

### EXTREME HEAT

Hotter days and persistent heat waves could increase the likelihood of heat stress, heart attack and death, particularly in New Jersey's urban areas. High temperatures increase ground-level ozone pollution, a leading cause of asthma and other respiratory illnesses. Children, seniors, and low-income communities would be impacted the most.

### DROUGHT

Projections call for an increase in the frequency of short-term droughts due to higher summer temperatures and decreased summer rainfall. These droughts would jeopardize adequate fresh water supplies for vital human and environmental needs.

### FLOODS

More intense, frequent flooding could lead to significant habitat loss for wildlife. Salt marshes and estuaries that serve as critical feeding grounds for migrating birds and waterfowl, and as nursery habitat for important commercial fish such as menhaden and blue crab, could be lost forever.

[www.nj.gov/globalwarming](http://www.nj.gov/globalwarming)

Learn More About Climate Change in New Jersey



# What can I do about global climate change?

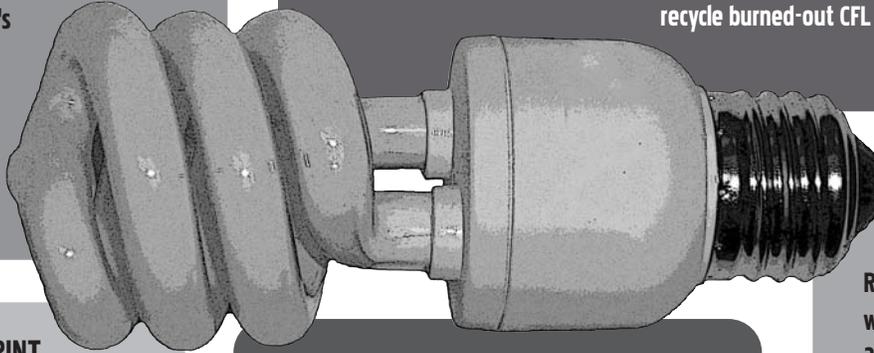
Want to make a difference? Here are 10 things you can do to combat global climate change and save money:

## CHECK YOUR TEMPERATURE

Simple measures, such as installing a programmable thermostat and properly insulating a home, can reduce a typical family's carbon emissions approximately 5 percent while saving money on monthly bills.

## CHOOSE THE RIGHT LIGHT

If every U.S. household replaced one regular light bulb with an energy-saving compact fluorescent light bulb, global warming pollution would be reduced by more than 90 billion pounds. Every CFL you use will save \$40 over the life of the bulb. Be sure to properly recycle burned-out CFL bulbs.



## KNOW YOUR FOOTPRINT

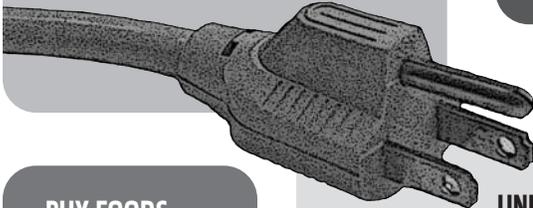
Use the carbon-footprint calculator at the NJ Global Warming Web site to understand which personal choices make the biggest difference in fighting global warming.

## BE AN ENERGY STAR

Look for the Energy Star label when you shop for new appliances. In addition to reducing your greenhouse gas emissions, you will save money on water and energy bills.

## REDUCE, REUSE & RECYCLE

Recycling half of your household waste will slash CO<sub>2</sub> emissions by 2,400 pounds per year. Purchasing reusable products instead of disposables helps combat global warming and reduces our reliance on landfill space.



## BUY FOODS GROWN LOCALLY

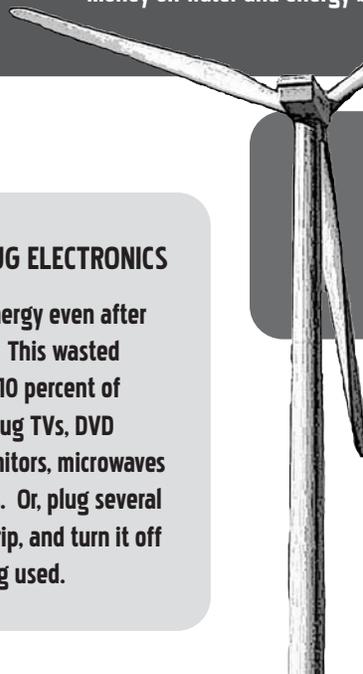
Most food travels nearly 1,500 miles before it gets to your plate. Buying locally grown, seasonal foods greatly reduces the CO<sub>2</sub> emissions involved with food distribution, and it supports local farmers, families and businesses.

## UNPLUG ELECTRONICS

Many electronics use energy even after you've turned them off. This wasted energy can account for 10 percent of home energy use. Unplug TVs, DVD players, computers, monitors, microwaves and cell phone chargers. Or, plug several devices into a power strip, and turn it off when they are not being used.

## CHOOSE CLEAN POWER

The NJ Clean Energy Program makes it easy to buy your electricity from clean renewable sources like wind and solar. [www.njcleanenergy.com](http://www.njcleanenergy.com)



## BUY SUSTAINABLY HARVESTED WOOD

Sustainably managed forests slow climate change by storing or sequestering carbon. When buying wood products, check for labels that indicate the timber came from a forest that is sustainably managed and not clear-cut.

## DRIVE CHANGE

Choosing a fuel-efficient vehicle provides the single biggest opportunity for most people to reduce their carbon emissions. Each gallon of gas used produces 25 pounds of CO<sub>2</sub> emissions. The NJ Clean Vehicle List can help you make an informed decision. [www.nj.gov/dep/cleanvehicles](http://www.nj.gov/dep/cleanvehicles)



Learn more. Visit [www.nj.gov/globalwarming](http://www.nj.gov/globalwarming)