

CLIMATE CHANGE IMPACTS ON ALABAMA

WHAT IS CLIMATE CHANGE?

The earth's climate is changing because of excess carbon dioxide pollution in the atmosphere, generated when fossil fuels like coal, oil, and natural gas are burned. This extra carbon traps more heat, like a greenhouse, which explains why 2000 to 2009 was the hottest decade ever recorded and there have been over 400 consecutive months with hotter-than-average global temperatures. Modern civilization developed in a stable climate and we have built our economy and way of life accordingly. Changes to our climate means that we are facing emerging hardships and vulnerabilities as the impacts of climate change unfold.

Some impacts from climate change include extreme storms, flooding from sea level rise, heat waves, and drought. These impacts have consequences for public health, safety, the economy, the environment, and our way of life.

Fortunately, we can protect against the worst impacts by limiting carbon pollution with energy efficiency and using clean renewable energy, like solar and wind.



Over the last decade, AL fossil fuel power plants emitted an average of 73 million metric tons of carbon pollution each year.



Alabama's coastline is immensely vulnerable to flooding and erosion, made worse by sea level rise from climate change. Dauphin Island has already lost some of its houses to the sea. Credit: USGS

HOW DOES CLIMATE CHANGE IMPACT AL?

It is difficult to link any one event directly to climate change, and it is important to recognize that most climate data is regional or even global in scope. However, decades of expert research and centuries of historical records can be compared with recent trends to illustrate how climate change is already impacting parts of the Southeastern United States. These impacts, combined with possible future impacts, are both cause for concern and the imperative for action.

- Some of Alabama's most **treasured coastal places** are **flooding** and **eroding** away due in part to sea level rise from climate change. [Dauphin Island](#), for example, has already lost a number of its houses to the sea and local residents are preparing for the island to be gone completely. [Also at risk is Alabama's coastal tourism economy](#), which generates \$5.4 billion and supports about 68,000 jobs annually. Seas are [projected](#) to rise by 1 to 4 feet, but as much as 8 feet, throughout the 21st century.
- **Extreme weather**, including [severe storms](#), [heat waves](#), and more intense [hurricanes](#) are all becoming more typical in a warmer world. These events have a large toll in terms of **physical damage**, **lost productivity**, **higher insurance costs**, and **public health**. [Cold snaps](#) may become more common, like the 2014 "polar vortex," which [crippled Birmingham](#) with road gridlock while thousands of children had to spend the night at school because their parents couldn't reach them.
- **Heritage foods** and **agriculture** are suffering because of global warming. Some seafood, such as [oysters](#), are directly harmed by the carbon pollution absorbed into the ocean, while farmers may [lose more crops](#) to heat stress, drought and [unreliable winter weather](#), which is expected to become more frequent in a warmer world. For example, in 2007, Alabama was the epicenter of the worst drought on record, prompting the [entire state to be declared a natural disaster area](#), and in 2014, [winter freezes](#) destroyed a good portion of Mobile County's citrus crop.



IT'S TIME FOR SOLUTIONS!

PROMOTE CLEAN ENERGY

Clean energy, such as solar, wind, and energy efficiency, produces no pollution and provides good paying jobs. Studies show that the United States could easily generate 80% of its power from clean sources by 2050. Energy efficiency can dramatically reduce the amount of power we use in our homes and businesses and lower our bills. Wind and solar energy are now the least expensive forms of new electricity in the country and Alabama has abundant resources of each. Electric vehicles are now widely available and reduce our reliance on oil. Our state policies should seek to level the playing field between clean energy and riskier fossil power plants.

OPPOSE HIGH RISK ENERGY

Some energy sources have greater risks associated with their use. Old, inefficient and dirty coal power plants must be retired to reduce levels of pollution that trigger asthma attacks and heart and lung disease, put mercury in our water, and cause climate change. Nuclear power plants don't emit carbon directly, but are extremely expensive to build, require large amounts of water to operate, generate dangerous, highly radioactive waste, and can have devastating consequences should an accident occur. Our coast is too precious to be compromised by spills from offshore drilling. Clean energy is a positive alternative to each of these risky energy sources.

TAKE ACTION TODAY!

Find & Contact Your Elected Officials

www.bit.ly/legislator-search

Support Our Work & Become a
Member of SACE Today

www.cleanenergy.org/donate

Join the Southeast Coastal
Climate Network

www.cleanenergy.org/seccn



CONTACT YOUR ELECTED OFFICIALS

National and state-level climate and energy policies are imperative to ensure protection from the worst impacts of climate change and to secure the benefits of clean energy. Contact your elected officials in Washington D.C. and Montgomery and tell them we must have climate and energy policies that:

- Invest in job-creating energy efficiency and clean energy
- Limit carbon pollution
- Preserve and strengthen the Clean Air Act
- Hold polluters accountable and fossil fuel subsidies

References and links available on the online version of this factsheet:

<http://www.cleanenergy.org/al-climate-impacts>