CHANGE THE FORECAST FOR WILDLIFE

SOLUTIONS TO GLOBAL WARMING

Global Warming and ALABAMA

Alabama's diverse coastal and inland ecosystems face a serious threat from global warming. The Intergovernmental Panel on Climate Change estimates that by 2100, average temperatures in the state could increase by 5.85 degrees Fahrenheit if global warming continues unabated. The warmer climate is expected to cause more extreme fluctuations in precipitation across the region, contributing to heavier rainfall and flooding, as well as more severe drought conditions. Hurricane Katrina offered an example of the type of severe storm that scientists expect to become more common because of global warming. Projections also indicate sea level along Alabama's coast could rise 15 inches during this century, contributing to coastal erosion and wetlands loss, particularly in areas where sea walls and other coastal development reduce the ability of wetlands to migrate inland. We can solve global warming and revitalize our economy by rebuilding America with clean energy.

Global warming effects on Alabama wildlife

Alabama is home to an incredible diversity of native wildlife species, including 326 birds, 63 mammals, 85 reptiles, 68 amphibians and 284 fish. Rising temperatures and sea level in the state will likely change the makeup of entire ecosystems, forcing wildlife to shift their ranges or adapt.

- High temperatures and drought during summer months can reduce the productivity of bobwhite quail by limiting the availability of insects necessary to keep hens and chicks healthy. The conditions may also contribute to a reduction in nest cover, which could make broods more susceptible to predators. On the other hand, cooler, wetter summers could increase quail production.
- Higher average temperatures could contribute to the expansion of invasive species such as water hyacinth, blue tilapia and Brazilian pepper, which can crowd out native species and alter the region's ecosystems.

- Warmer average temperatures in northern states could lead many ducks and other waterfowl that typically migrate to Alabama during the winter to stay farther north.

Global Warming Pollution

Burning coal, gas and oil produces carbon dioxide, which is a greenhouse gas that warms the planet as it builds up in the atmosphere. Some of the carbon dioxide released today remains in the atmosphere after even 100 years, trapping more and more heat.

Since the mid-1800s, emissions of carbon dioxide have skyrocketed, causing global temperatures to rise by about 1˚ Fahrenheit in the last century. Earth has not experienced such a rapid change in temperature in thousands of years.

A Global Solution

The U.S. must lead the world by passing global warming legislation at home and working with other nations at the Copenhagen climate summit at the end of 2009 to sign a new climate treaty that keeps further warming below 2˚ Fahrenheit. With a global solution, we can avoid the worst impacts of global warming.

What's at stake for Alabamians?

Those who have lived in Alabama for any amount of time may think they know how to handle the heat, but global warming is something that cannot be ignored. More extreme weather events could lead to an uncertain future for timber, agriculture and wildlife recreation economies.

- The coast of Alabama was hit hard by Hurricane Katrina in 2005. Research from MIT shows that hurricanes and other major storms have increased in intensity and duration by about 50 percent since the 1970s and are linked to increases in average sea surface temperatures. Rising sea levels will leave beachfront development more vulnerable to storm surges and erosion.

- Changes in coastal habitat due to global warming could have a significant impact on Alabama's fisheries industry, which contributes at least $300 million to the state's economy each year.

- Loss of wildlife and habitat could mean a loss of tourism dollars. In 2006, more than 2.3 million people spent more than $1.8 billion on wildlife viewing, hunting and fishing. This supported 48,039 jobs in Alabama. *(*Number of jobs are based on an average from 2001 and 2006 data.*)

"Global warming poses an overriding challenge to our responsibility to protect wildlife for our children's future. We must advance balanced solutions that work for people, wildlife and the economy to overcome this challenge."—
Larry Schweiger
President, CEO
National Wildlife Federation

GLOBAL WARMING NATIONAL POLICY SOLUTION:

A federal legislative solution can drive American ingenuity, create millions of green jobs, and restore America's global leadership on global warming. Legislation should:

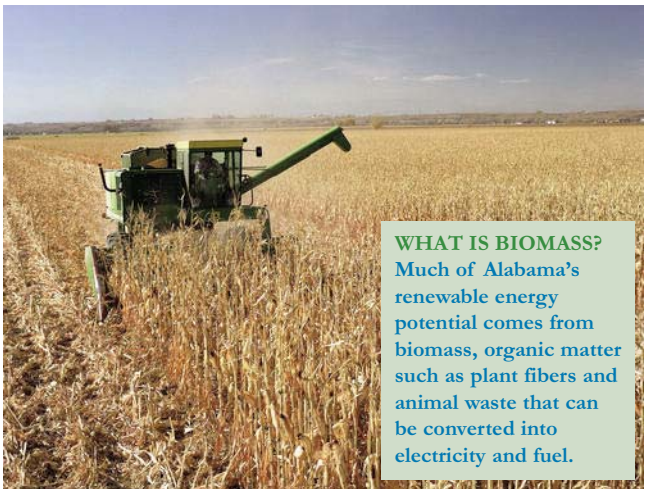
* Include ambitious targets to reduce America's global warming pollution as swiftly and deeply as possible. Scientists say that developed countries as a whole need to reduce their global warming pollution by at least 80% from 1990 levels by 2050 to avoid the worst impacts of global warming.

* Move America toward a 100% clean electricity future by maximizing energy efficiency, modernizing the electric power grid, expanding power generation from renewable energy resources, and investing in clean transportation infrastructure.

* Invest in natural resources. Forests, coasts, wetlands, clean air and clean water are already being impacted by global warming. Funding is needed to safeguard the natural resources that are critical to wildlife populations and human health.

* Lead a worldwide effort to finance clean energy technology, forest conservation, and adaptation to unavoidable impacts of global warming.

For more information, visit: **www.nwf.org/globalwarming.**



WHAT IS BIOMASS? Much of Alabama's renewable energy potential comes from biomass, organic matter such as plant fibers and animal waste that can be converted into electricity and fuel.

Warren Gretz (NREL)

Alabama's solutions to global warming

Researchers from the state's universities are playing a key role in understanding the growing threat from global warming and establishing programs to research solutions.

- Alabama's renewable energy sources continue to grow, with 51 biomass and hydro-electric facilities generating nearly 3.8 million kilowatt-hours of electricity each year.

- Businesses, farmers and local governments can apply for grants to replace their energy systems with biomass alternatives through Alabama's Renewable Fuels Program. The Sustainable Energy Coalition estimates that participants save $10 million annually on energy costs.

Following some simple guidelines, you can cut your global warming pollution, become more energy efficient and give something back to nature.

- **Plant shade trees:** The Department of Energy says planting three trees strategically around your home to block the sun in summer and wind in winter can reduce your annual heating and cooling costs by an average of 40 percent.

- **Convert to compact fluorescent bulbs:** If every household in America replaced its next burned out light bulb with a compact fluorescent, we would prevent more than 13 billion pounds of carbon dioxide from being emitted. That's the same as taking 1.2 million cars off the road for an entire year.

- **Become a Green Tag subscriber:** Many states now offer options for homeowners to buy electricity from clean, renewable sources such as wind, solar and biomass that produce little or no global warming pollution. Green energy can also be purchased through the National Wildlife Federation by visiting **www.nwf.org/energy.**

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NATIONAL WILDLIFE FEDERATION

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