



CHANGE THE FORECAST FOR WILDLIFE
SOLUTIONS TO GLOBAL WARMING

Global Warming and IOWA

Iowa's wetlands, forests, croplands and prairies face a serious threat from global warming. The Union of Concerned Scientists estimates that by 2100, average summer temperatures in the state could increase between 9-22 degrees Fahrenheit depending on the extent to which greenhouse gas emissions are curbed. Already, higher temperatures and drier conditions are causing changes within ecosystems like the Prairie Pothole Region, an important breeding ground for millions of waterfowl and other migratory birds. Scientists project that global warming alone could destroy up to 91 percent of the area's wetlands by the 2080s, reducing duck numbers by 9-69 percent and seriously affecting the waterfowl hunting industry nationwide.



Global warming effects on Iowa wildlife

Iowa is home to an incredible diversity of native wildlife species, including 274 birds, 68 mammals, 139 fish, 47 reptiles and 23 amphibians. Rising temperatures in the state will likely change the makeup of entire ecosystems, forcing wildlife to shift their ranges or adapt.

- Warmer average temperatures and changes in precipitation could significantly reduce available wetland habitat, including prairie potholes in Northern Iowa and wetlands in the DeSoto National Wildlife Refuge. These places provide critical breeding and stopover habitat for hundreds of thousands of waterfowl and shorebirds.
- The state bird, the American goldfinch, may contract its breeding range to the northern part of the state due to changes in climate.
- Global warming is also projected to alter prairie grassland habitat, which could cause many of the state's grassland bird species to shift their ranges north.



What is Global Warming?

When coal, gas and oil are burned, they produce carbon dioxide that builds up in the atmosphere and traps the sun's heat. Much of this greenhouse gas 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, and subsequently global temperatures have risen by about 1 degree Fahrenheit in the last century. Earth has not experienced such a rapid change in temperature in thousands of years.

Unless we reduce the pollution that causes global warming, temperatures could climb between 2-10 degrees Fahrenheit this century. Such a rapid rise in temperature would fundamentally reshape the planet's climate, forever changing the landscape and water resources people and wildlife depend upon.



What's at stake for Iowans?

Iowa has more than 19,000 miles of fishable rivers and streams and approximately 230 lakes, which draw a number of hunters, anglers and birders each year. Changes from global warming threaten not only to degrade these and other natural ecosystems, but also the health and economy of the state.

- The summer flood of 1993 left all 99 Iowa counties disaster areas, costing \$8 billion in agricultural damages and crop loss. Global warming models project that this extreme flooding, historically estimated to happen once every 100-200 years, could occur on average once every 10 years.
- Warmer temperatures are expected to bring more extreme droughts to Iowa as warmer air evaporates moisture from the soil more rapidly. Crop yields from corn, one of Iowa's chief crops, could decline by up to a 23 percent.

“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

- Loss of wildlife and habitat could mean a loss of tourism dollars. In 2006, nearly 1.9 million people spent more than \$913 million on hunting, fishing and wildlife viewing in Iowa. The industry in turn supported 17,189 jobs in the state.* (*Jobs are an average of 2001 and 2006 data.*)

GLOBAL WARMING NATIONAL POLICY

SOLUTION:

2% POLLUTION REDUCTION PER-YEAR

A federal legislative solution can drive American ingenuity, create a new generation of American jobs, and meet our moral responsibility to confront global warming.

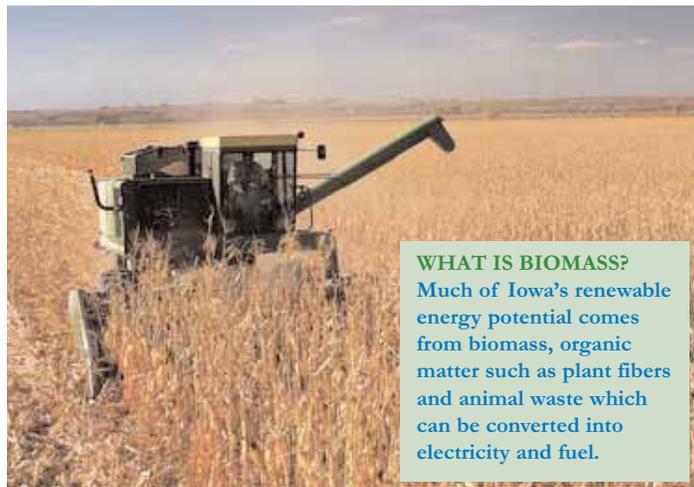
A GLOBAL WARMING BILL SHOULD:

* Reduce U.S. global warming pollution 2% per year, or 20% per decade, and on the order of 80% by the middle of this century. Scientists say the United States must cut our pollution at least this much to avoid the most catastrophic impacts of global warming.

* Encourage innovation and prevent facilities from being built that lock us into many years using old, inefficient technology.

* Provide funding to protect wildlife and their habitat. Global warming is already adding new wildlife management burdens. Funding is needed to help continue the long tradition of fish and wildlife associated recreation.

For more information, contact Zoe Lipman at: lipman@nwf.org.



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

Warren Greitz (NRELI)

Iowa's solutions to global warming

The state has been a leader in developing solutions to global warming.

- Iowa's 2002 Comprehensive Energy Plan Update requires state facilities to purchase at least 10 percent of their electricity from renewable energy by 2005 and to reduce their energy consumption to 20 percent below 2000 levels.
- Iowa has the potential to generate more than 20 times its electricity needs with renewable energy sources such as well-placed wind farms and biomass from crops.
- Iowa farmers are participating in a pilot program that pays them to store carbon in their soil by not tilling. The Chicago Climate Exchange program then sells carbon credits to utilities and other big carbon polluters to offset emissions.

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.
- **Act locally:** Contact your mayor and ask that (s)he sign the U.S. Mayors Climate Protection Agreement, committing your city or town to meet or beat the global warming pollution reductions outlined in the Kyoto Protocol.

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