

Protecting Florida's Communities, Economy and Environment from Global Warming

Global warming is already affecting Florida and will continue to do so for decades to come. The American Clean Energy and Security Act invests significant new revenues in protecting communities and local economies across America by creating jobs that protect wildlife and landscapes from the effects of global warming. However, given the scale and duration of the threat, more funding will be needed.

Critical Issues for Florida:

- Rising sea level
- Damage to local economy
- Increasing storms and hurricanes
- Increased health risks

Is Global Warming Affecting Natural Resources in Florida?

Yes. Florida is warming. Since 1970, temperatures across the state have **risen approximately 2°F¹, and are expected to rise an additional 5°F by 2050.²** These changes are significant, and the impacts are already being felt.

Across the U.S., more than 80% of plant and animal species studied are shifting their ranges in reaction to less than 1°F of warming in the last century.³ The Intergovernmental Panel on Climate Change predicts warming could result in **up to 30% of known species becoming extinct**, and the disappearance more than one-fifth of the world's ecosystems.⁴

Locally, sea level rise and coastal erosion are likely to have large impacts on natural resources and communities across Florida. **A projected sea level rise of 27 inches by 2060 would submerge 55% of Florida's beaches.⁵** In the Everglades, the ocean is expected to encroach 12 to 24 miles, leaving the lower Everglades completely submerged.⁶ Across the state, the social, cultural and economic impacts of failing to address climate change are extreme.

The time to act is now. Investing in clean energy solutions and protecting our natural resources will help safeguard our economy and communities from global warming's impacts.



Protecting Florida's natural areas such as Everglades National Park—and the valuable benefits such as clean air and water that they provide—protects communities across the state.

What is at Stake?

Changes brought on by global warming are disrupting the balance of natural resources and having significant impacts on communities and businesses across the state.

- **Communities:** Sea level rise and increasing numbers of hurricanes pose a serious threat to communities along Florida's 1200-mile coastline. Hurricane damage alone is projected to cost \$25 billion per year by 2050.⁷ By 2060, \$130 billion dollars worth of residential real estate could be flooded, affecting over 1.5 million people as rising sea levels submerge communities across the state.⁸ Most dramatically, up to 99.6% of Monroe County and 70% of Miami-Dade County may be inundated.⁹
- **Tourism and Recreation:** Florida's natural areas are critical to the state's annual \$65 billion tourism and recreation industry.¹⁰ Coral reefs, responsible for more than \$5.5 billion dollars in annual recreation sales¹¹, are already beginning to disappear, and will likely continue to be threatened as temperatures rise, leading to mass bleaching and higher rates of diseases.¹² In addition, impacts to local businesses, such as the profitable fishing industry, could be very costly for Florida. In 2006, fisherman spent \$4.4 billion on recreation and fishing-related sales generated \$441 million for the state.¹³
- **Agriculture:** Rising temperatures, drought, and saltwater intrusions greatly threaten Florida's agriculture, including the \$1.3 billion citrus industry, which accounts for more than half the total value of U.S. citrus production.¹⁴ Global warming also threatens Florida's greenhouse and nursery plants industry, the largest in the U.S. with \$1.9 billion in sales, and Florida's tomatoes, which generate \$830 million in annual sales.¹⁵ Higher temperatures also threaten Florida's cattle industry, which generated \$471 million in cattle sales and \$461 million in dairy sales in 2004.¹⁶
- **Health:** Increasingly severe heat waves caused by global warming will likely lead to more heat-related deaths and diseases, such as malaria and West Nile Virus.¹⁷ The number of days per year with temperatures over 90°F is expected to increase up to 165 days annually by the end of the century.¹⁸ Placed at risk are those most vulnerable to the heat, including Florida's significant elderly and retiree population.¹⁹

Economy at Risk:
\$65 Billion
*Annual contribution of tourism
and recreation to the state's
economy*



National Parks such as Biscayne Bay—which generates close to \$24 million a year for local economies—are threatened by global warming.

Protecting Natural Resources, Creating Jobs

Restoring ecosystem health helps ensure species have the best possible chance to adapt to the effects of global warming. Ecosystem adaptation projects, such as establishing wildlife corridors for animals migrating in search of needed habitat, are critical to the survival of many species. **Investing now in natural resources is the most cost-effective way to protect our treasured landscapes and the clean water, clean air and jobs they provide.**

Of the total allowance value generated from an energy and climate bill, at least 5% should be invested in protecting communities and local economies across America by protecting natural resources from the effects of global warming. This funding will allow Florida's wildlife and land management agencies, as well as the Land and Water Conservation Fund and the Forest Legacy Program, to ramp up important conservation projects.

This dedicated funding will allow scientists, engineers, construction crews, and others to be employed across Florida:

- Repairing damaged watersheds to ensure clean water for communities by removing impediments and deteriorating structures, restoring eroding river banks, and repairing in-stream habitat.
- Acquiring land and establishing migration corridors to increase species' survival as climates change.
- Monitoring wildlife, habitat and local climate and developing appropriate adaptation responses.
- Restoring native landscapes to increase resiliency in a warming world by removing unnecessary roads and barriers, constructing buffer strips along river corridors, and removing invasive species.

This work will protect and create American jobs—providing new skills and income to workers and their families across the state.



Restoring river habitats protects ecosystems, jobs, and drinking water

Investing in Solutions for Families, Businesses and the Planet

The risks to Florida and the nation from global warming are significant—and require an extensive and sustained commitment to reducing heat-trapping pollution, and to protecting our natural resources and the communities that rely on them. A cap-and-invest system that reduces pollution and auctions emission allowances will provide billions of dollars for combating the climate crisis.

Revenues from a cap-and-invest system must be directed to three primary solutions:

- **Invest at least 5% of the total allowance value generated in annual dedicated funding for natural resource protection** in order to create jobs while increasing resiliency across landscapes, protecting important natural services and safeguarding communities.
- **Offset increased energy costs for at-risk consumers** by allocating a percentage of allowance auction revenues to consumers through existing mechanisms such as the Earned Income Tax Credit and the Low Income Home Energy Assistance Program.²⁰
- **Invest in areas such as clean energy choices, job training, and business assistance**, which will aid businesses and communities in transitioning to a clean energy economy, while creating jobs and reducing heat-trapping pollution.

Florida and the nation need your support for reducing carbon pollution and protecting communities by safeguarding our natural resources. Please vote YES on the American Clean Energy and Security Act (H.R. 2454).

For more information, please contact:

David Moulton – Director, Climate Change Policy (202) 429-2681

JP Leous – Climate Change Policy Advisor (202) 429-2676

Text Box Citation: National Conference of State Legislatures. 2008. "Florida: Assessing the Costs of Climate Change." Available from: <http://www.ncsl.org/Portals/1/documents/enviro/ClimateChangeGA.pdf>

Photo Credits: National Park Service for the picture of the Everglades and the picture of the Biscayne Bay and the State of Massachusetts for the river restoration picture.

¹ U.S. Climate Change Science Program. January 2009. "Global Climate Change Impacts on the United States." Available from: <http://downloads.climate-science.gov/sap/usp/usp-prd-all09.pdf>

² The University of Washington and The Nature Conservancy. 2009. Climate Wizard. Available from: <http://www.climatewizard.org/index.html>

³ Sagarin, Raphael. 2002. "Historical Studies of Species' Responses to Climate Change." In: *Wildlife Responses to Climate Change: North American Case Studies*. Ed: Terry L. Root and Stephen H. Schneider. Island Press. Washington, DC.

⁴ Intergovernmental Panel on Climate Change. 2007. "Summary for Policy Makers." In: *Climate Change 2007: Impacts, Adaptation and Vulnerability: Working Group II Contribution to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. Pg 792.

⁵ Stanton, Elizabeth A. and Frank Ackerman. Florida and Climate Change: The Costs of Inaction. Tufts University. November 2007. Available from: http://www.ase.tufts.edu/gdae/Pubs/rp/Florida_hr.pdf

⁶ Ibid.

⁷ Ibid.

⁸ Ibid.

⁹ Ibid.

¹⁰ Florida Commission on Tourism. 2007. Preliminary Visitor Estimates, Resident Pleasure Travel, and Industry Trend Indicators. 2006Q4 and CY2006. Tallahassee, VISIT FLORIDA Research

¹¹ Hazen and Sawyer, 2004. Socioeconomic Study of Reefs in Martin County, Florida—Final Report, NOAA.

Hazen and Sawyer, 2003, Socioeconomic Study of Reefs in South-East Florida. Report to NOAA, Hollywood, FL: Hazen and Sawyer 2001, modified April, 2003.

¹² Hoegh-Guldberg, O., 1999, Climate change, coral bleaching and the future of the world's coral reefs. *Marine and Freshwater Research* 50: 839–866.

¹³ State of Florida, *Economic Impact of Fishing in Florida*, <http://fishingcapital.com/economics.html>.

¹⁴ Florida Department of Agriculture and Consumer Services 2006; Bureau of Labor Statistics 2007

¹⁵ U.S. Department of Agriculture 2005; Florida Department of Agriculture and Consumer Services 2006

¹⁶ U.S. Department of Agriculture 2005

¹⁷ Environmental Entrepreneurs. May 2005. "Effects of Global Warming on The State of Florida." Available from: http://www.e2.org/ext/doc/e2_georgia.pdf

¹⁸ U.S. Climate Change Science Program. January 2009. "Global Climate Change Impacts on the United States." Available from: <http://downloads.climate-science.gov/sap/usp/usp-prd-all09.pdf>

¹⁹ OASDI Beneficiaries by State and County 2006. Available from: http://www.ssa.gov/policy/docs/statcomps/oasdi_sc/2006/table01.html

²⁰ Stone, Chad and Hannah Shaw. 2009. "Extending "Climate Rebates" to Include Middle-Income Consumers." *Center on Budget and Policy Priorities*.