



**CHANGE THE FORECAST FOR WILDLIFE**  
SOLUTIONS TO GLOBAL WARMING

## Global Warming and **PUERTO RICO**

Sea level is projected to rise two to five times faster in the coming century than it did in the past 100 years as global warming causes glaciers to melt and ocean waters to expand. Islands such as Puerto Rico are especially susceptible. Moreover, Puerto Rico's unique topography makes it vulnerable to floods and landslides caused by extreme weather such as tropical storms, which could become more intense. Warmer water temperatures have already caused a phenomenon known as coral bleaching and the continued spread of coral disease throughout the Caribbean. This degradation to the coral reef ecosystem threatens wildlife as well as the tourism industry of the island. We can solve global warming and revitalize our economy by rebuilding America with clean energy.



L. Miranda-Castro

### Global warming effects on Puerto Rico wildlife

Puerto Rico's Karst Forest is home to more than 1,300 species of plants and animals—not to mention 30 threatened and endangered species such as the Puerto Rican parrot. This and other ecosystems may look completely different as changing climate makes the area unsuitable for many native species.

- Puerto Rico's coral reefs provide shelter, food and breeding grounds for thousands of marine animals and plants. Today, as much as 90 percent of coral reefs in the region are dead or dying due to a host of factors, including global warming. An increase in average sea temperatures over the past 30 years has caused widespread coral bleaching, where corals lose the colorful algae in their tissues that they need to survive.



L. Miranda-Castro

- Rising sea levels could inundate critical beach nesting sites for endangered marine turtles, particularly where structures such as sea walls limit the ability of beaches to migrate inland.
- Studies indicate that the decline of amphibian species in Puerto Rico is closely correlated with periods of drier weather and drought, as altered rainfall patterns reduce critical habitat necessary for spawning and reproduction. Global warming is expected to exacerbate these drier conditions.

### 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.



USFWS

## What's at stake for Puerto Ricans?

On most islands such as Puerto Rico, much of the population and social infrastructure is located along the coast, leaving them particularly vulnerable to sea level rise and more intense storms projected in global warming models. Moreover, Puerto Ricans dependent on the tourism economy could face some tough challenges in the coming century.

- When Hurricane George swept across the island in 1998, it left some areas severely flooded with up to 26 inches of rain. Total losses surpassed \$2 billion. Scientists expect tropical storms and hurricanes to increase in intensity in the coming decades, leaving behind similar destruction.
- Puerto Rico is listed among the five most popular diver destinations visited by America's more than 11 million divers. A decline in coral reefs could seriously cut into the profits this major money source provides for the island's dive industry.
- Apart from diving, Puerto Rico is heavily dependent on tourism dollars from wildlife viewing, fishing and other outdoor recreation. Loss of wildlife species and habitats due to global warming and other environmental pressures threaten the livelihoods of thousands of state residents.

**“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](http://www.nwf.org/globalwarming).



## Puerto Rico's solutions to global warming

Puerto Rico is in the process of exploring a number of alternative and renewable energy options to decrease dependence on fossil fuels and help to decrease the impact global warming could have on the island.

- Several corporations in Puerto Rico, including Caribe Waste Technologies, Thermoselect, HDR Engineering, Zachry Construction Company and Montenay Power, are moving forward with development of the first waste-to-energy power plant in Puerto Rico.
- In May, 2003, San Juan completed a 10.7 mile (17.2 km) metrorail system called Tren Urbano (Urban Train) that connects San Juan, Bayamón and Guaynabo.

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

- **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](http://www.nwf.org/energy).

**Geralyn Hoey**  
**National Wildlife Federation**  
404-876-8733 x 224  
[HoeyG@nwf.org](mailto:HoeyG@nwf.org)

**Sheylda N. Diaz-Mendez**  
**Sociedad Ornitológica Puertorriqueña, Inc.**  
[directivasopi@yahoo.com](mailto:directivasopi@yahoo.com)

