



## CHANGE THE FORECAST FOR WILDLIFE SOLUTIONS TO GLOBAL WARMING

# Global Warming and the VIRGIN ISLANDS

**G**lobal warming is not just heating the Earth's average air temperature; it also is warming waters globally—a phenomenon already causing problems for the U.S. Virgin Islands. As waters warm, they expand, causing sea level to rise along coastlines. Moreover, increasing temperatures are hurting the health of ocean ecosystems, spreading disease and causing massive coral bleaching in places such as Virgin Islands National Park. Scientists say the change in water temperature could also play a major role in the intensity of hurricanes in the coming decades. Being that it is on the front lines of all of these problems, the U.S. Virgin Islands could definitely be in hot water from global warming by the end of the century.



## Global warming effects on Virgin Islands wildlife

**A**lready faced with challenges from human development and other environmental concerns, the diverse species of the U.S. Virgin Islands could have an even harder time surviving as global warming continues. Rising temperatures and sea level will likely alter the makeup of entire ecosystems, forcing wildlife to shift their ranges or adapt.



- The coral reefs of the Virgin Islands provide food, shelter and breeding grounds for thousands of marine species. Today, as much as 90 percent of corals 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 they need to survive.
- Already, heavy logging and development have seriously diminished native wildlife habitat within the U.S. Virgin Islands. Erosion, flooding and invasive species, made worse by global warming, could push some of the most endangered species to the brink of extinction.

## 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 Virgin Islanders?

The changes from global warming threaten not only to degrade the natural ecosystems of the U.S. Virgin Islands but also the health and economy of its people.

- The water resources of the U.S. Virgin Islands are already strained, as 65 percent of the territory's drinking water comes from desalination plants, making it the most expensive publicly supplied water in the United States. Drier conditions projected with global warming would increase these water needs and the costs associated with them.
- More than 11 million Americans participate in snorkeling and scuba-diving activities, with many traveling to the U.S. Virgin Islands, home to some of the most beautiful reefs in the world. As coral quality declines with bleaching and storm damage, it could mean fewer tourist dollars for the islands.
- Evidence suggests that hurricanes have already increased in intensity and will continue to do so because of global warming. Moreover, rising sea levels will leave beachfront development along the Virgin Islands' coastline more vulnerable to storm surges and erosion.

**“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:**

#### **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, visit: [www.nwf.org/globalwarming](http://www.nwf.org/globalwarming).



John Thornton (NREL)

## Virgin Islands' solutions to global warming

The U.S. Virgin Islands have enormous renewable energy potential, particularly from solar power. Several programs have been developed to expand the use of solar and other clean energy sources on the islands, helping to reduce carbon pollution from dirtier fossil fuels.

- The Virgin Islands Energy Office was created to monitor and champion energy efficiency and renewable energy opportunities throughout the islands.
- Florida Power & Light and St. Thomas University have partnered on a cooperative fuel cell and solar project in the U.S. Virgin Islands.
- Tampa Electric Company has developed a biogas unit at one of the islands' landfills, to convert landfill gas into energy.

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 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.
- **Use a low-emission boat motor:** Boat engines such as a low emission, four-stroke motor pollute only one-sixth the amount of older two-stroke engines.
- **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).

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